

JANUARY 1982

Video

FOR LEISURE

YEAR OF THE VIDEODISC?

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BUT WILL ANYONE BUY IT?

NEWAKAI AND HITACHI VCRs REVIEWED
TV PROGRAMMES ON VIDEOCASSETTE
JVC's ZOOM VIDEO MICROPHONE
PRESTEL-GATEWAY TO TOMORROW

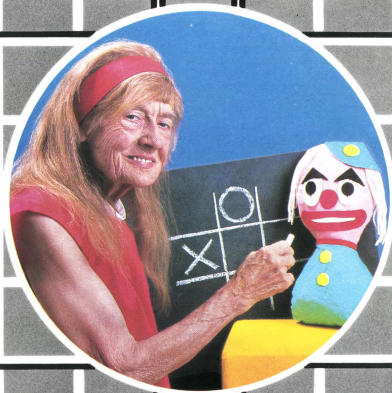
PHILIPS
LaserVision



Pictures from a Silver Disc

Presented on the occasion of the first
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11th September 1981.

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Our at-a-glance guide to the prices and principle specifications of all leading videocassette recorders, portables and cameras. These are the only dots before your eyes that not only don't damage your health but positively improve your wealth by preventing you from wasting it.

NEXT MONTH:

Recorder reviews on the new Ferguson 3V30 and Panasonic NR7200 machines; a video-oriented report on the obscenity laws; and a look at porn on video — does it live up to expectations?

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Getting religion via video

With the success of videocassettes like *The Story of Jesus* and *Greatest Heroes of the Bible*, it seems that video offers great possibilities for spreading the Christian Gospel.

Michael Byrne, a lay-preacher and Director of Christian Video Outreach, feels that the gospel can be brought to non-churchgoers through video. He intends to make six videocassettes by spring 1982, which he hopes will appeal to people whether they go to church or not. They will be entertaining without resorting to cheap tactics and will include a sermon, solo singers and choirs singing modern gospel songs, outside broadcasts and interviews with well-known religious personalities.

At the moment, the plan is to make these programmes available only on VHS but Christian Video Outreach intend to make them available in all formats. The cassettes will probably cost between £25 and £35. Michael Byrne explained that this is not to make a profit but to cover costs.

If you are interested in a Christian video tape ministry contact Michael Byrne, Christian Video Outreach, Credenhill Court, Credenhill, Here-

fordshire (Tel: 0432 760107).

Other organisations are already working on such projects. Christian Television Association (CTA) holds seminars to help Christians who are interested in using video to the Glory of God. Its autumn newsletter told members that the Lord had answered their prayers and provided them with a portable U-matic videocassette recorder. Unfortunately this has since been stolen. At the moment the association is praying for a colour TV camera, an edit U-matic VCR and a basic lighting kit. (They are having to hire equipment for now.)

Videocassettes on religious training are available from the Campus Crusade for Christ. Cassettes can be hired at £30 for six weeks. These include *How To Be Filled With The Holy Spirit*, *The Cleansed Life* and *How to use the 'Knowing God Personally' booklets*.

Another group offering a wide selection of religious cassettes is Audio Visual Ministries. The 1980 catalogue includes titles like *Christian Family Life*, *Evolution Or Creation*, *I Went To Hell And Came Back* — *Life Story*, *Thou Worm* and *The Gospel of Power*.

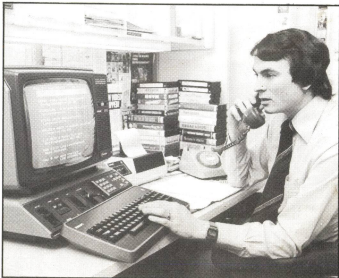
Philips V2000 'hot line'

Owners of V2000 video recorders can still have difficulty in getting videocassettes in this format from their local video dealers despite the growing number adding V2000 cassettes to their libraries. With this in mind, Philips has set up a 'software hotline' providing up-to-date information about pre-recorded material available on the V2000 format.

Information on what titles can be

bought or rented and where is stored on videotape. By calling 01-684 7691 between 9.30 and 5.30 queries can be answered immediately while you wait.

The latest software companies releasing their programmes on the V2000 format are CIC and Video Unlimited. The London-based Video Club is also now stocking almost 400 titles in this format.



Handling V2000 enquiries at the Philips 'software hot line' centre. It provides up-to-date information

Hitachi's mini Mag Camera: full details



Hitachi's pint-size Mag Camera

Back in spring, 1981, at the IEEE Chicago conference, Hitachi announced the successful development of a new colour video camera-recorder. Albeit only in laboratory prototype guise — only two exist today — it heralds a new era in video; several new technologies promise to make all future video recorders and cameras much more compact, and with enhanced picture and sound quality.

The 'mag camera', as Hitachi have temporarily branded their new baby, has been reported several times before, but with scant detail of the underlying technical philosophy.

Its most obvious attribute is compactness. It weighs in at a mere 2.6kg, which is lighter than many of the better colour video cameras, and dimensions are just $24 \times 19 \times 7.6$ cm, plus the lens. Hitachi appear to have achieved their goal of total portability in these respects, but another burning question upon the lips of anyone with experience of handling a portable VCR is power consumption. Most portable VCRs run for half-an-hour, or less, from heavy, bulky battery packs. Hitachi have taken this as a challenge, almost to a ridiculous extreme, for their camera draws only 7 watts from a tiny integral NiCad pack. This too yields a running time of half-an-hour, which is a mite restrictive. With such a low current drain, it would surely in practice be better to allow a fraction more room for batteries capable of offering an hour or more.

Immediately apparent was the mag camera's remarkably good quality of both picture and sound. Colour and definition were at worst comparable with that which we expect from 'normal' home recording gear. If any failing was apparent, it was merely a mild increase in the occurrence of dropouts. Sound in particular was excellent, with a better top response and very low noise level.

Two principal obstacles in the way of miniaturisation of a camera-recorder are the optical image sensor and tape recording density. This is where a concentration of new technologies become apparent. Hitachi have abandoned the evacuated picture tube and created a solid-state image sensor. A single MOS chip contains 186,240 picture elements, with monolithic complementary colour filters integrated directly on each one. They are disposed in a lattice 485 vertically and 384 horizontally. The MOS image's output is converted into NTSC format, and so arranged that the luminance signal is frequency modulated while the chrominance signal is converted down to a low frequency. The bandwidth allocated for the signal is 4.8MHz, which leaves a convenient gap in the spectrum, at just over 1MHz, which Hitachi have reserved for frequency modulated audio.

Current $\frac{1}{2}$ in tape VCRs offer audio which is of doubtful quality, to say the least. The prime cause is the low tape speed, which because the tape is scanned linearly restricts the high frequencies. The mag camera's recording system utilises only $\frac{1}{4}$ in tape with an even lower tape speed, which has forced Hitachi into finding an alternative way into storing the sound. Their solution is one which should have been applied to all VCRs long ago — namely to integrate the sound with the picture waveform as an FM signal, stereo multiplex capable.

The net results of this audio encoding configuration is a claimed signal-to-noise ratio of 50dB, a bandwidth of 30 to 18,000Hz, wow and flutter down to 0.003% and distortion of 0.5% — all of which promises very high audio quality. We are told that this didn't come easy, however. One problem which required considerable technical research to overcome was noise generated from interference between the audio and video signals.

The audio FM carrier had to be combined with the bias signal for the FM luminance, which results in the audio being amplitude and phase modulated by the luminance. Another problem was eradication of noise arising from the fast switching between the two video heads.

Although Hitachi make a special boast about their research taking them right back to reappraisal of all basic means of implanting video signals onto magnetic tape, they ultimately opted for the conventional two-head helical scanning arrangement. Coupled with slanted azimuth recording, 2 heads apparently procure the highest possible information recording density.

In the quest for a miniature tape recording section, recording density is of paramount importance. Every year sees an improvement, and since 1970 the trend has followed a constant law. From the U-matic, with only 0.16 hours per square metre of tape, through VHS-2 in 1977 with 0.6hr/m², Hitachi have taken the limit up to 2.85hr/m². This immediately permits the use of $\frac{1}{4}$ in. wide tape — specially formulated oxide now, and metal later — with a reproduced quality equivalent to VHS-2. Removal of audio scanning speed constraints have allowed a much lower tape speed, which in turn allows a small track pitch and drum diameter. Actual figures are 44mm for the drum, a tape speed of 15.76mm/s (under half that of VHS), writing speed of 4.1m/s (NTSC) or 3.4m/s (PAL), and a track pitch of 18.5µm (PAL). This combination offers a theoretical 9dB deterioration compared with the VHS-2, but the difference is made up, it's claimed, by using the special tape, some new tricks in the luminance processing circuitry, and a narrow gap, tin-added ferrite head system.

The mag camera is without doubt a remarkable achievement, but how long it will take to make it a marketable entity is an open question. Hitachi are reluctant to commit themselves to an answer, presumably because of anticipated problems in achieving very tight tolerances in mass production and at the same time remembering the necessity of keeping price competitive. It is highly probable that other $\frac{1}{4}$ in video recording systems, like the Cannon (already on sale in Japanese shops), will steal a lead on Hitachi and thus complicate tape format standardisation. But Hitachi must be in with more than a fighting chance of launching the first miniature camera-recorder on to world markets. Two hours of quality colour video from a videocassette little bigger than an audio Compact Cassette is an outstanding achievement. It is but a shame that we'll have to wait so long for our first review sample.

REVIEWS

Beyond a joke

Videospace has released two videocassettes containing material 'beyond the limit of broadcast television acceptability'.

The *Kenny Everett Naughty Joke Box* is a 90 minute cassette on VHS and Beta, costing £39.95. Filmed before a live audience, it features well-known comics telling 'naughty jokes', linked by Kenny Everett with the aid of two girls. These comedians include Willie Rushton, Lennie Bennett and Leslie Crowther.

Derek and Clive — Get The Horn was produced to celebrate the 20th anniversary of Peter Cook and Dudley Moore's first meeting. Six hours of recording have been condensed into 88 minutes of improvisation and obscenity. This cassette also costs £39.95.

What a Gas!

Polydor-label rock band The Gas have self-produced a videotape version of their debut album, *Emotional Warfare*. And, because it was filmed on a budget that adds new meaning to the term 'hoeshing', they're able to sell it for a staggeringly cheap £9 — barely one-quarter the cost of conventional music videocassettes.

The band kept costs down by High Street hiring a camera and U-Matic recorder for a week, filming within a 50-yard radius of the recorder (the length of their extension lead) and using non-union personnel. Polydor also helped out by waiving their music royalty fees until the tape recoups its cost through sales.

Since the cost of making it was just £276, that shouldn't take long. You can get a copy of *Emotional Warfare* by sending £9 plus 40p postage to The Garage, 33 Finch Street, London SE1 7EN.

Stereo sound from Grundig

Grundig has announced that its first stereo video recorder will be on the market in late 1982.

The Video 2 x 4 Stereo is suitable for recording and playing back stereo sound TV signals when they are available in the UK, the playback of pre-recorded stereo software and twin-channel sound. This model has the same features as the Grundig 2 x 4 Super with an additional sound dubbing facility.

When programmes are broadcast in stereo or twin-channel sound, the built-in stereo decoder automatically switches to these modes. Stereo televisions can be connected through standard AV DIN sockets.

Full details: Grundig, Newlands Park, London SE26 5NQ (Tel: 01-736 8072).

Leasing scheme boycotted

The new software leasing scheme launched by Warner Home Video (see *Video for Leisure*, November) is being boycotted by all but two of the country's biggest wholesalers who supply tapes to many leading video shops.

They are refusing to handle any of WHV's 'blockbuster' titles, such as *Superman, Ten, Everywhichway But Loose* and *Exorcist 2*, because of 'penalty clauses' attached to the company's leasing agreement. So if these tapes aren't in your local shop, now you know why.

"Our action means that titles such as *Superman* will not be as readily available as most other manufacturers' titles," says Peter Graham of Centre Video in Dunstable who says that the only major wholesalers continuing to stock WHV titles are PMA in Chester and Global Video Supplies in south east London.

Warner's leasing terms state that if a tape is not returned after the lease expires a £50 'fine' has to be paid. The lease itself operates on the basis of extendable 28 day periods, with the first period costing a dealer £12 for each tape. The amount is reduced by £2 for each subsequent period until a minimum monthly leasing charge of £4 is reached. It will cost a shop about £70 to lease a tape in its first year, although after 6 months blockbusters like *Ten* will only cost £1 a week to lease — allowing the dealer to rent them out fairly cheaply and still make a profit.

"I think wholesalers could possibly make money from the scheme as it is, but only if our customers pay the full value of the leasing charges up front," adds Barrie Gold, of S. Gold and Sons, who says he prefers the 'surcharge' scheme operated

by companies like CIC Video which involves only a 'one-off' payment to cover rental and copyright royalties.

"I'm worried about having to hold stock on our shelves because we still have to pay Warner's the full leasing fees for them — even though we're not actually doing anything with the product," says Gold. "The other problem is having to return each tape to Warner's at the end of the lease period. I can't see us getting all of the tapes back from retailers. What if some dealers went out of business because of the recession in the meantime? We'd end up having to pay £50 a time ourselves."

Despite the wholesalers' boycott, WHV says it isn't hurting. "We currently have the top five titles in the Top 40 rental chart," says Geoff Grimes, Director of UK Operations for Warner Home Video. "I've had just about enough of these particular wholesalers — the 'Magnificent Seven'. We don't want our tapes to sit on their shelves. We want our titles in the High Street where video fans can get at them."

"We are now supplying our tapes on a lease basis to about 750 key outlets — seven of which are also wholesalers," explains Grimes. "All of the independent dealers love the scheme and none of our titles is losing them money. One small trader in the south east recently took three copies of *Superman* from us and rented them out 49 times in the first 28 day period at £1.95 a night. He made over £60 profit from that alone and he was still able to rent out each cassette at a fairly cheap rate which is attractive to his customers."

BRIAN OLIVER

Watch and wipe tape magazine

The idea of a magazine on video isn't new, but Catalyst's brainchild is. The London-based video publishers have put an hour-length magazine on a three-hour tape, the idea being to record over it — hence the name of the magazine, *Rewind*.

Catalyst have just released their third issue and after seeing the content of *Rewind 3* you may well decide not to record over it. It's a light-hearted magazine compiled from the 'good bits' of albums and comedy shows, interviews, original material and previews of some of the latest videocassettes released.

Rewind 3 includes *Meaningless Songs* from The Hee Bee Gee Bees, Pamela Stevenson acting out Landscapes *Norman Bates*, Shakespeare with sub-titles for the deaf and an interview with Middleweight Wrestling Champion, Adrian Street, who now wants to be a rock star.

A programme guide comes with the cassette. It costs £12.95 and is available through all Thorn EMI

outlets. Catalyst are at 28 Shelton Street, London WC2 (Tel: 01-836 9139).

"On schedule"

Philips have announced that Laser-Vision videodisc player production is well on schedule for the system's UK launch. Unfortunately, they still aren't announcing a launch date so such information's really rather meaningless.

The bulk of the players will be made at the Philips plant at Hasselt in Belgium, with a few also originating from the Philips plant at Eindhoven in Holland.

Production figures, like the launch date, are being kept under wraps. Philips will only say that some tens of thousands of players will be available for the UK launch 'with production rising thereafter as the market becomes established'. Or if the market becomes established — see Barry Fox's major videodisc article elsewhere in this month's issue.

Stars before your eyes

Remember how K-Tel revolutionised the record business in the early 1970s by taking a score of hit singles and putting them all together on one compilation album? Well, a new video company called Wienybuds (run by two former K-Tel executives) is now doing the same thing on videocassette. They are putting together music video programmes using top-quality promotion films for hit singles — the kind that are shown on *Top of the Pops* or *The Kenny Everett Video Show*.

The first release — aptly titled *Videostars* — is being made available this month through Thorn-EMI. Wienybuds claims it is the world's first multi-artist music video and it contains some of the most recent chart hits ever to be released in video form.

The K-Tel-style 'video album' runs for 80 minutes and is being released in VHS and Beta formats. It contains 21 chart-topping music tracks — five of which are still in the Top 50. It also includes the brand new Christmas single from Genesis. Other top artists performing one track each on *Videostars* include: Leo Sayer, Kiki Dee, Dire Straits, Phil Collins, Hazel O'Connor, Bad Manners, Sky and Depeche Mode. Altogether, twenty artists are featured, with Imagination performing two tracks.

"It has taken us six months to put *Videostars* together and we've had to overcome a mountain of legal and copyright hassles," said Wienybuds director Ian A. Wiener, most recently International A&R Manager for K-Tel Records. His partner, Carey Budnick, is also a former K-Tel International marketing manager.

"The programme involved negotiating 47 separate contracts and cost us a fortune in legal fees," added Wiener. "But I think it was worth it. No one has got this far before with a music video compilation because of the copyright problems that have to be overcome."

Music publishers and video companies have been at loggerheads for some time over the amount of royalties which have to be paid to songwriters and their publishers on the sale of video cassettes. So far, no standard percentage has been agreed. In fact the two official negotiating bodies (the British Videogram Association and the Mechanical Rights Society) have stopped talking to each other on the subject because they can't agree. So Wienybuds had to work out all of the deals song by song.

Wiener explained that Wienybuds was responsible for selecting and collating all of the video tracks and then editing them into a cohesive new programme. "Although we have taken the tracks from other companies, we have spent a lot of money on editing them into a viewable and re-viewable

package," explained Wiener. "Two days were spent in the studio on the audio sequencing and over 20 hours went into the visual sequencing. We used Millanay Grant who have made a number of award-winning promotion films for major artists."

Wiener added that a lot of other companies are now offering Wienybuds major tracks on video because they have managed to overcome the legal problems. "They have all invested a lot of money in making quite superb promotion clips which are really high-quality miniature films in their own right. When a single has been a hit, the clips usually end up having to sit on a shelf. Now they can be put to a useful and entertaining use."

"We are already working on our next compilation."

BRIAN OLIVER

'Cinerama' at home

The video business is getting bigger and bigger... and so are video screens, it seems.

A company called Home Video Big Screen, which has already introduced 60in and 80in video screens into pubs, clubs and restaurants, has just launched a new, 'low-price' video unit with a 50in screen which has been specially designed for use in the home. At £799 (plus VAT) the new machine is hardly cheap, but it is less expensive and more flexible than any other 'large screen' product currently on the market. Most are priced at well over £1000.

Home Video Big Screen says it has managed to keep the price down by using as the signal source a 16in remote control colour television (the Loewe-Opta RC11) instead of the usual three-tube set-up. The TV set can even be used on its own as a second telly in the house and the company says the system can be used with any VCR format, video camera or home computer.

The 'home big screen' package includes a compact projector which can be attached to the front of the TV set in order to throw the picture onto a washable 50in screen. The complete unit mounts on a special stand which can be positioned in front of the screen. All you have to do is link it up with your video.

The system provides audio output through its own speaker. But Home Video Big Screen says it can easily be coupled with your hi-fi system 'without modification'. Big screen... big sound too!

Although the company intends to make its portable 'big screen' available through a network of 900 retailers by next summer, less than 50 already stock it. If there isn't a dealer near you, contact: Home Video Big Screen, 61-65 Conduit Street, London W1R 9FD. (Tel: 01-439 1941). **BRIAN OLIVER**

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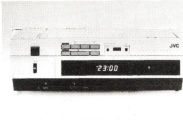
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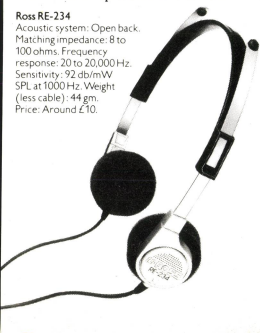
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SOFTWARE

TV on VT



TV companies are now subscribing to the 'if you can't beat 'em, join 'em' philosophy with regards to video. Brian Oliver reports

The latest magazine advertisement for Precision Video tapes says: "If you don't like the programme, don't take it out on the TV." It shows a dramatic picture of an irate viewer knocking hell out of his beloved telly with a sledgehammer because he can no longer stand the programmes he is being offered. "Only video can save him", is the unstated message.

Meanwhile, the press adverts used by Warner Home Video to publicise its new titles last October also shouted anti-TV slogans like: "He stops planes, trains, bullets and boring television" (for *Superman*) or "Were you planning to spend the evening with Elsie Tanner again?" (for *Bo Derek's Ten*). Despite promising to offer an almost simultaneous release of blockbuster movies in the cinema and on video this year, Warner admits it is trying to win over TV viewers rather than cinema-goers.

Now, as if reacting to the threat from video (or perhaps realising that there is a few extra bob to be made from the booming new medium), the TV companies are also launching themselves into the video software business. It's presumably a case of "If you can't beat 'em, join 'em".

Cynics will probably moan that, having already witnessed a lot of the 'same old films' that keep reappearing on television now being released on video, we are about to suffer the same fate with old TV shows. BBC Television, ATV and Thames Television have already started to make their mark in the world of video. Now they are being joined by London Weekend Television, Yorkshire and Tyne Tees (which used to be known collectively as Trident TV), Grampian and Harlech. Others, like Scottish Television Granada and Border, are

said to be thinking about it.

Granada takes pride in having been the first TV company to release its product on video... way back in 1978, when video was still considered by many people to be just a 'passing fad'—like *Space Invaders*. It released four titles on a 'test' basis through its Granada TV Rental shops. The lesson it learnt from that exercise was that it would be better off waiting until the video market had developed further before jumping in with both feet.

The company says it still has no firm plans to enter the video market with its own label and it is now the only one of the 'big four' TV stations which has not yet committed itself. "We have ambitious plans for video ultimately," says Patrick Rickenberg, Sales Director for Granada TV International, "but we are in no hurry to step into the market. We believe the main opportunities will come later this year when a sufficiently clear base has been developed in the market for worthwhile programmes other than movies."

It could be that Granada is really awaiting the launch of the video disc JVC and Thorn EMI are expected to unveil their VHD disc here in June, with the several times postponed Philips LaserVision expected at any time.

Meanwhile, it is 'made for TV' video titles from companies like ATV, Thames and Trident which are trying to break the 'stranglehold' which blockbuster movies already have on the video market. ATV and its production arm, ITC, have been represented on video since 1980 by Precision Video, which is also owned by Lord Grade's Associated Communications Corporation. The TV company has already

released nearly 30 top TV titles and more are expected later this year. Actual TV shows have been used for most of the tapes, but three of them are comedy movies based on TV programmes: *Ronnie Barker's Porridge*, *George and Mildred* and *Rising Damp*.

Space 1999 was the source of *Destination Moonbase Alpha*, while *Invasion UFO* comes from the old Ed Bishop series *UFO*. Gerry Anderson's favourites *Thunderbirds* and *Stingray* see action again in *Thunderbirds to the Rescue* and *The Incredible Voyage of Stingray*. "Each of these titles has been specially edited for video to make it a complete entity in its own right," explains Precision's Managing Director, Walter Woyda. "For example, the *Thunderbirds* tape is based on four or five separate TV programmes, but it is a totally new product on video. And our *Mighty Micro* title is six ATV shows condensed into one."

Other similar adaptations include *Vendetta for The Saint* (from the 1960s Saint series starring Roger Moore) and *London Conspiracy* and *Mission Monte Carlo* which are taken from *The Persuaders* series. "But some of the titles have deliberately not been condensed so that the viewer does not lost anything," says Woyda. "In programmes like *Jesus of Nazareth*, for example, we have taken the full six and a half hours minus each week's credits. And TV plays like *Michael Frayn's Donkey's Years* and *Long Day's Journey into Night* are shown complete. We are trying to give the consumer value for money."

Woyda adds that Precision has also released a number of ATV-produced

'classic' plays, operas and ballet programmes. They include four Shakespeare plays, with major stars like Laurence Olivier, Ralph Richardson and Alec Guinness. There are also two Gilbert and Sullivan programmes and Stanley Dorfman's TV production of *Giselle* which stars Rudolph Nureyev.

New TV-based titles being lined up for 1982 by Precision include *The Switch* and *Sporting Chance* (from *The Persuaders*) and a Captain Scarlet tape. Woyda says a number of major TV series are also currently being specially edited for video release later this year—including *Edward VII* (starring Timothy West), *Disraeli* (Ian McShane), *The Strauss Family* and *Pioneers of Modern Painting*. Each complete TV series will be made available simultaneously on four or five cassettes.

Thames Television entered the video market in April 1981 when it formed Thames Video and tied up a non-exclusive distribution deal with Thorn-EMI. About 25 titles have been released since then, with more to be made available in February. *Thames' Royal Wedding* cassette really put the company on the video map. But, like Precision, it has so far concentrated mainly on repackaging successful comedy shows, serials and plays. "A lot of feature films are not really suitable for family viewing, so we are concentrating on making alternative types of titles available," says Thames Video's Oliver Gamgee. "For example, kids love David Bellamy's *Botanic Man* which is the full series put onto three tapes. And comedy titles like our two *Benny Hill* volumes, *The World of Morecambe & Wise* and *The Best of George and Mildred* are our biggest sellers."

Gamgee adds that the comedy titles (and another Thames 'best seller', *The Kenny Everett Video Show*) are not just straight re-runs of complete TV shows. They have all been specially compiled and edited from a number of different episodes. "This makes them even stronger," he claims.

Another 'steady' seller from Thames is the *World at War* series which now covers five cassettes and features Parts 1 to 10 of the original TV documentary epic. Like ATV, the company has also released TV series, like *Edward and Mrs. Simpson*, over a number of cassettes. In Thames' case, three. "But I don't think we'll spread future titles based on TV series over three cassettes," explains Gamgee. "We'll probably edit them down onto two tapes. The problem is you cannot really chop a seven hour series below four hours without losing some of its continuity and quality. TV programmes are specially made to remind viewers each week about the story and who the characters are."

Gamgee says that Thames is aiming at both the sales and rental markets (as are all the TV companies) and it is 'trying out' various types of product in order to assess where the video market is going. Initially, its policy was to release 'collectable' titles which it knew a lot of people would buy for their video libraries. Gamgee cites *World at War* and the award-winning TV play *The Naked Civil Servant* (starring John Hurt) as prime examples of tapes many people have preferred to buy rather than simply rent. "We are now trying to build a Performing Arts catalogue which we think will be a slow but steady seller in

the longterm," says Gamgee. "It will be a carefully-planned series using international sources not just Thames TV material." The company has already released *Swan Lake*, based on an original TV production.

There are no plans yet to release any titles produced by Thames' subsidiary company Euston Films, because no agreement has been reached with the unions and copyright owners over royalty payments. That means no *Sweeney*, no *Fox* and no *Out...*—all titles which Gamgee feels could be highly successful on video. "We spent four years negotiating with the unions over royalty rates and in the end we took the best of a bad deal so that we could release product," explains Gamgee. "But the agreement does not cover titles produced by Euston Films."

The inability of the BBC to reach an agreement with the talent unions (Equity), the Writers Guild and the Musicians Union) also delayed its arrival on the video scene. BBC Video has been negotiating with them for about four years now, but they have still not been able to come to an agreement which would enable the Beeb to dig into its treasure-trove of programme material.

The BBC's original intention was to launch a full video catalogue of about 350 titles almost immediately, drawn from the cream of its programmes. But that now looks a long way off. Instead, the Beeb was forced to release only a limited catalogue of twenty titles last September. Plans to make a further ten cassettes available in time for Christmas were spoiled by industrial action by video tape editors in October and November.

Instead of being able to release a wide variety of titles based on over 30 years of broadcast television, the BBC has had to resort to using material which does not require the unions' approval. In other words: 'news' or documentary footage, with no music, no professional actors and no scripted 'plot'. Even the BBC's *Royal Wedding* cassette (one of the biggest sellers in 1981) was in doubt at one stage because of its music content.

The catalogue of titles which the BBC eventually managed to bring out was built on 'informative' programmes like David Attenborough's *British Garden Birds*, *Training Dogs the Woodhouse Way* and three gardening videobooks—"as well as 'general interest' programmes such as *The Queen's Birthday Parade*, *The Story of English Furniture* and cassettes about the navy and the railways. Four sports titles were also released, including Harry Carpenter's *Videobook of Sport*, plus a small selection of children's titles.

The BBC's intention of getting more of its available product onto the video market by releasing some of its titles on Philips' LaserVision disc was thwarted last autumn when Philips yet again postponed its disc launch. Life is not a bed of roses at the Beeb, it appears. At least, not when it comes to trying to release product on video.

When the union problem has been resolved by the BBC, there is likely to be a 'deluge' of titles covering opera, ballet, rock, comedy, TV series and 'classic' plays. But John Ross Barnard, BBC Video chief, says it is impossible to predict when that will be. Instead, he is having to 'buy in' video programme material which has not been produced by the BBC and therefore presents less of a problem with the unions.

It also means that the unions' members are not benefitting from the growing financial rewards and extra work that video offers. Two of the Beeb's most successful tapes, *Toyah at The Rainbow* and *Deep Purple—California Jam*, were 'bought in'.

It is not clear whether the BBC's tussle with the unions affects its ability to use 'hard' news footage on video. ITN certainly took advantage of its news library last year by teaming up with the Sunday Times, TV Times and VCL to release 1980 (a sort of 'Best of News at Ten' compilation which looked back on a year that included the Iranian Embassy siege). "It didn't sell too brilliantly, but it is the sort of tape that will gain in value as time goes by," says Steve Webber of VCL, which distributed the title to shops after TV Times had initially offered it to its readers through mail order. "The TV Times offer probably creamed off most of the sales. But we would be keen to handle a similar tape for 1981. I think ITN and TV Times are planning one."

Guild Home Video has already released two *Professionals* cassettes (featuring four episodes from the series) and Trident Television (formerly the owner of Yorkshire and Tyne Tees) has also put out a 'double feature' tape through Guild. It comprises *Charley's Aunt* (starring Eric Sykes and Jimmy Edwards) and a 52 minute play featuring Julia Foster, called *Mr. Axelford's Angel*.

More Trident Television titles are being lined up for 1982 release by Guild. They include: *Sez Les* (a compilation of Les Dawson shows), *The Best of Rising Damp*, *The Best of the Sandbaggers* (a two cassette series) and *The Racing Game*, based on the Dick Francis TV series. Two new titles with a Christmas flavour are *God's Story*, a cartoon which tells the life-story of Christ, and another 'double feature' comprising *Christmas Mass from York Minster* and *Handel's Messiah*.

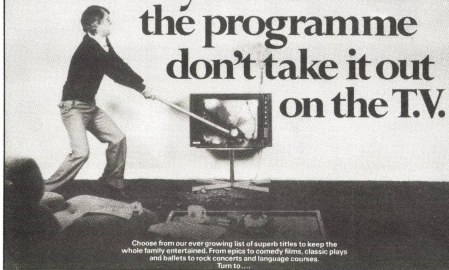
Harlech Television has also jumped into the video market through Guild Home Video. They have released five cassettes so far. Harlech's *The Clifton House Mystery* (a condensed version of the children's TV serial) and *Children of The Stones* are aimed at the children's market. While, in a more general field, they are offering *Reardon on Snooker*, *Pilgrimage to the Holy Land* and Donizetti's opera *Don Pasquale*.

North of the Border, Scottish Television has released a 52 minute play called *Cavern Deep* (distributed by Guild). And its ally Grampian Television is also looking closely at the video market. "Grampian might initially package together three or four of the artists it has featured in its popular series *The Entertainers*," says Madeleine Warburg of Richard Price Television Associates which represents Grampian's video interests.

London Weekend Television is about to launch ten VHS and Beta titles in its recently-formed video label, Weekend Video, which is distributed by Thorn-EMI. "We are initially concentrating on programmes that can be transferred with the minimum of special editing," says LWT's Victoria Bott. "We are picking proven favourites which are suitable for family entertainment."

LWT is still negotiating with the unions and copyright owners, but its 1982 catalogue is likely to include: a series of

When you don't like the programme don't take it out on the T.V.



Choose from our ever growing list of superb titles to keep the whole family entertained. From epic to comedy films, classic plays and ballets to rock concerts and language courses. Turn to...

Precision Video's latest advertisement

Upstairs Downstairs cassettes (with two episodes on each tape), a specially edited version of *It'll be alright on the Night*, and 'specials' from Tommy Steele, Stanley Baxter and Ronnie Barker. Special TV drama tapes will include Agatha Christie's *Seven Dials Mystery*, *The Death of Adolph Hitler* and Dennis Potter's *Cream in My Coffee*. A special edition of the *South Bank Show* is also being lined up. "We will almost

certainly be giving our titles on-air plugs," added Victoria Bott.

On the assumption that most people use their video recorders to tape TV programmes anyway, *Video for Leisure* asked the TV companies whether they weren't really wasting their money by putting TV shows onto video. "Most people use their video machines for time-shift purposes," says Thames' Oliver Gamgee. "They usually

keep a programme for a couple of weeks and then tape over it. When the programme becomes available for purchase a couple of years later, they are likely to want to buy it. It's a bit like going to a library to borrow a record. If you find you like it enough, you might then decide to go out and buy it."

Precision's Walter Woyda adds: "We also offer consumers a separate entity from the original TV programme. We never put out exactly what was shown on television."

Gamgee says that the quality of pre-recorded tapes is much better than off-air recordings. "It also costs a lot of money to tape all of the original episodes of a series like *Edward and Mrs. Simpson*. Consumers can save a lot of money by waiting for properly edited versions of their favourite TV shows."

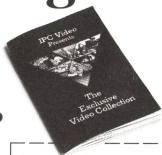
The television companies are counting on the fact that the 'flood' of blockbuster movies from the past 50 years or so (which have so far been video fans' staple diet) will eventually dry up... and Hollywood will not be able to keep up with growing demand for new titles. They hope that videophiles will then start turning their attention towards 'past favourites' and 'classics' from the small screen.

Maybe Granada will end up repackaging a number of *Coronation Street* episodes on video cassette. And the man standing in front of his telly with the sledgehammer will be asked in a future advert:

"Were you planning to spend yet another evening with Bob Derek? I'm Elsie, fly me."



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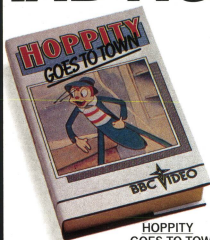
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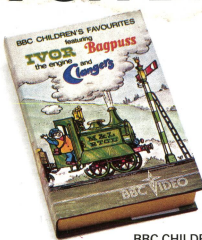
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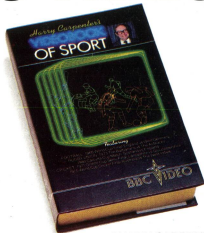
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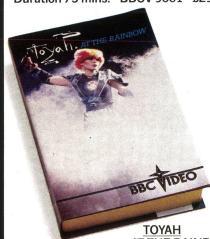
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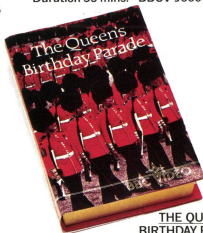
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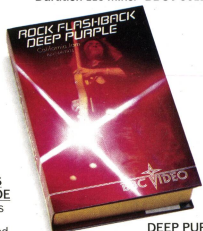
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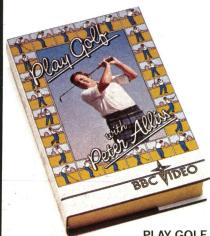
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BBC VIDEO



*LaserVision
in action*

PRETTY AS A PICTURE

BARRY FOX COMPARES AND CONTRASTS THE THREE MAIN VIDEO DISC SYSTEMS. WILL 1982 BE THEIR YEAR — OR WILL ALL THREE SYSTEMS PROVE TO BE COMMERCIAL DEAD DUCKS?

This year, 1982, may or may not be the year of the videodisc. There is little doubt that it will see the commercial launch of two systems (Philips LaserVision and JVC-ThornEMI's VHD). We may even hear a firm yes or no from RCA about the launch of the third system (Selectavision) into Europe. But a large question mark now hangs over the commercial viability of any videodisc system, let alone two or even three different and incompatible systems sold in competition on the open market. In America, where two videodisc systems (Laservision and Selectavision) are already on sale, the awful realisation is now dawning that videodiscs may prove to be a commercial disaster. Paradoxically the technology is at one and the same time both behind, and ahead of, its time.

In the early 70s, when domestic video tape recording was still a rich man's hobby and a minority sport, literally dozens of firms around the world announced the development of different videodisc systems. The idea of a gramophone record that replayed pictures and sound, instead of just sound, seemed remarkably attractive. One system, the TeD videodisc from Teldec (a joint project between Telefunken of Germany and Decca of Britain) was even offered for sale on the Continent in 1975.

The TeD disc worked on mechanical principles, with a very fine groove vertically modulated and tracked by a super fine stylus to produce colour pictures and sound. But each disc only ran for around 10 minutes and the system was soon obsolete. Recently Telefunken unearthed the TeD system and re-vamped it as a carrier for digital sound called Mini Disc. But Mini Disc has as much chance of commercial success as TeD, that is to say zero.

It was Philips who helped kill off TeD by announcing the laser-optical system which we now know as LaserVision, a reflective disc with pits in the surface read by a laser. MCA in America had been working on a similar system, and in 1974 joined with Philips. There then followed repeated promises of a commercial launch. This finally happened in America just before Christmas 1978.

So, surprising as it may seem, LaserVision has already been on sale in the USA for three years now. Players available in the US shops are made by Philips (sold under the company's American brand name, Magnavox) and by Pioneer. No-one is saying how many LaserVision players have been sold in the last three years but the number is known to be very low — just a few tens of thousands.

This isn't as serious for Philips and Pioneer as you would imagine. All the players so far sold have had to incorporate an expensive gas laser to produce the reading beam. In the future LaserVision players will use solid state lasers which function like a souped-up LED. Solid state lasers are already available but they aren't yet of sufficient reliability and low enough cost to make their incorporation in LaserVision players a practical proposition. So today's LaserVision players bring little, if any, profit to the manufacturer. But sale of the system establishes a market presence, or at least that's the theory.

Solid state lasers, suitable for use in Compact Disc digital players, are already being produced. This prompts the question: why should it be possible to use a solid state laser in a Compact Disc player but not in a LaserVision videodisc player? The answer is really very straightforward. For a LaserVision player, where the information

is coded in analogue form, the laser beam has to be very finely focussed onto a single turn of the track of pits. If there is any overspill, so that the beam illuminates two tracks rather than one, then there will be a double image on screen. But for Compact Disc some overlap doesn't matter. The information is digitally coded and, provided that most of the laser light falls on the intended track of pits, the information picked up from overspill illumination will simply be automatically discarded as noise. So far it has proved impossible to bulk-produce solid state diodes with a wavelength short enough to focus sufficiently tightly on to an analogue track.

Sales of the LaserVision system in the USA have also been held back by inadequate supplies of software, ie discs. Whereas a video tape recorder is used primarily to tape programmes off-air, a videodisc player is only as good as the software which can be bought or hired to play on it. The LaserVision discs available in the USA are mainly feature films, sporting events and 'how to' programmes. Originally they were all produced at the Californian pressing plant of DiscoVision Associates. DVA is a joint venture formed in 1979 between MCA, the entertainment giant which united with Philips in 1974, and IBM, which had been looking at videodiscs as an answer to data storage. Discs produced by DVA are made by injection moulding techniques similar to those used in the production of 45rpm gramophone records.

But DVA hit serious technical problems soon after the market launch of LaserVision in December 1978 and these are only now being resolved. Pictures from early discs showed signs of drop-out (white holes dotted across the picture) and the sound

was noisy. Some discs refused to play all the way through, the laser locking into one turn of the spiral and refusing to budge. Until recently, only a few Long Play (one hour per side) discs had been produced and sold, and their quality has not been good.

To boost sales of the company's own players, Pioneer has been quietly pressing optical discs in Japan for sale in US shops. But now Pioneer has launched a LaserVision player on the Japanese market, so the DVA pressing plant is back on its own again. It remains to be seen how DVA copes.

All this still doesn't fully explain why LaserVision players haven't sold like hot cakes. When the system was first announced, and then promised for our homes, it was the early and mid 70s. At that time, domestic video tape was still a young market. Pre-recorded video cassettes weren't widely available. Any exciting titles that were available tended to be pornography. And video tape machines were expensive to feed. For instance, in Europe tapes of the early Philips N1500 machines cost £25 an hour.

So the idea of a gramophone record that held a feature film in colour, with stereo sound, and cost less than an hour's worth of tape was highly attractive. In America, before Betamax and VHS, there wasn't a domestic videotape market at all — just industrial U-Matic. Even the early domestic systems had limited playing time. So if LaserVision, or any other technically acceptable videodisc system, had been launched in the mid-70s it doubtless would have sold like hot cakes. But even by the time LaserVision was launched in the USA, Christmas 1978, long-play versions of VHS and Beta had hooked the American public onto videocassette recording.

The LaserVision launch was also a 'rolling' launch, with limited numbers of players and discs available only in selected cities across the USA. It is only recently that LaserVision has been available throughout America. And now it may well be too late. People interested in buying video for the first time may go into a shop intending to buy a videodisc player but, once they have discovered that a videodisc system cannot record, they go for videotape instead. They also have a wide range of channel TV stations to choose from at home, so there's even less incentive to buy a playback-only medium.

This is what has hurt Selectavision, RCA's system. Selectavision is very much a cheap and cheerful approach to movies on disc. The 12in record is pressed from conductive plastics, and has a fine pitched groove on the surface. This is tracked by a super-fine stylus which contains an electrode. The stylus electrode senses the electrical changes caused by pits in the bottom of the groove. The player is cheap to produce because it doesn't incorporate a laser, and there's none of the complicated servo control needed to track a smooth, grooveless disc. But if the super-fine groove, which is around one fortieth the pitch of a conventional audio LP groove, isn't perfect, then the stylus will lock and keep playing the same groove and picture sequence over and over again.

Although RCA doesn't like to talk about such things, Selectavision players are believed to contain a 'nudge' control which automatically nudges the stylus into the

next groove if a lock is detected! Also, because the Selectavision disc is pressed from conductive material, and is tracked by a capacitance-sensitive electrode, it is spoiled by surface dirt or grease. So it can't be handled. As a result, the Selectavision disc must be stored at all times in a plastic caddy.

Although RCA has recently been promoting the technical potential of Selectavision, there is no doubt that the system cannot match LaserVision in terms of technology. There is no physical contact between a laser disc and the tracking head, but the Selectavision disc is tracked by contact with a stylus which must eventually cause wear. In the half-hour format of the Philips LaserVision system, one video frame (two interlaced fields) is recorded for each revolution of the disc. So, when the laser is halted to read the same track of the disc over and over again, a perfect still frame picture appears on the screen. For Selectavision, four frames are recorded in each revolution of the disc. So locking in a single groove turn produces a repeated sequence of movement rather than a still frame.

Also, RCA initially launched Selectavision in mono only, whereas LaserVision is stereo capable. A stereo version of Selectavision is now coming onto the market (for instance from Japanese manufacturers) so US shopkeepers haven't been anxious to sell mono players which they feel are already obsolete.

RCA launched Selectavision on the US market in late March 1981, with a nationwide publicity campaign said to have cost at least 20 million dollars. The company estimated that 26,000 players were sold to customers in the first five weeks, and branded the event as 'the most successful introduction of any major electronic product in history'. RCA also proudly predicted the sale of 200,000 Selectavision players by the end of 1981. Original costs were enticingly low: just under 500 dollars for a player, with feature films costing an average of around 20 dollars each.

But there is mounting doubt over the commercial viability of the RCA system — doubt fuelled by the recent news that RCA was closing one of the two US lines producing Selectavision players. Frankly it is hardly surprising that 26,000 players were sold in five weeks, because RCA had 5,000 dealers in tow and surrounded the launch with a massive national advertising campaign. But, after the advertising campaign had ceased, the situation changed. I saw with my own eyes in New York that neither shops nor customers had any interest in Selectavision, and only marginal interest in LaserVision.

RCA had, for instance, supplied all its Selectavision dealers with an impressive display stand holding a player, rack of disc sleeves and a television monitor. A slot was provided in the rack for display of the sleeve for the record now playing. In New York almost no shop was demonstrating Selectavision, unless specifically asked to do so. One salesman described the system to me as a 'giant step backwards' and recommended LaserVision instead. Other salesmen just recommended a video cassette player instead of a disc system.

There was also clearly considerable confusion over the two different systems and promise of a third. The salesmen in New York shops seemed resentful of this.

They had only just managed to educate the public into the difference between the VHS and Beta video tape systems (in the US there are different playing times and tape speeds inside these formats) and now they were faced with a similar problem on videodisc systems.

'It's like quadruphonics all over again', one New York shopkeeper told me. In another shop the Selectavision player had been damaged because a salesman had tried to load it with a LaserVision disc!

RCA in America recently reported a 24.3% decline in earnings, largely due to its videodisc commitment. Although RCA players originally went on the market for 500 dollars (around £250) each, there is now an official 'free home trial' scheme and 50 dollar rebate offered by RCA. This is in addition to drastic price cutting by the stores stocking them. The way things are going, they could soon be giving them away to help sell discs.

So far there's no firm news of any Selectavision launch in Europe, just vague talk of a launch in 1983. There hasn't been a UK demonstration of a PAL player. The only demonstrations of Selectavision that have taken place in British have been on NTSC equipment, even though RCA claims to have developed PAL players and discs. The company has been looking for a commercial partner in Europe to manufacture them, an up-front inducement of 40 million dollars has been in the offing. But so far there have been no takers.

For what it is worth, my bet is that we shall never see a PAL version of Selectavision in British shops. It's far harder to squeeze PAL pictures onto a disc than NTSC and so far all the public demonstrations of NTSC Selectavision have produced only very mediocre pictures. Whereas Americans, used to awful off-air quality, may put up with what Selectavision offers, Europeans used to clear off-air PAL won't give it house room. What's more, the European market will be disastrously fragmented with two systems competing, a third would be bad news for all round.

We've already reported in HFP (November) on how Philips is no longer predicting a UK launch for LaserVision. It's likely however that LaserVision will appear in British shops some time this year, probably late Spring. This is because Philips aren't leaving a launch of LaserVision any later than that.

The real commercial competition for LaserVision isn't from Selectavision, it's from VHD or Video High Density (re-named Video Home Disc) developed by JVC in Japan. VHD is now backed by Thorn EMI and this gives the system commercial clout. Originally Philips had assumed that Thorn EMI would be backing LaserVision. This was a logical assumption because Thorn has considerable experience in lighting technology and EMI has been working on laser disc recording and playback for years. But Thorn had also grown sick and tired of dealing with Philips during the early days of video tape (they were once licensees for the 1500 series of videocassette recorders) and subsequently struck up a very profitable deal with JVC to sell VHS. For Thorn EMI the carrot was commercial and technical backup from JVC with delivery promises honoured and reliable products that worked; the stick was probably a subtle reminder from JVC about how much Thorn EMI depended on



Video disc players galore were on show at the recent Components Show in Osaka, Japan. In this picture gallery recording still pictures, and an array of VHD players

the Japanese company for reliable supplies of VHS products. So it wasn't surprising that Thorn EMI opted for VHD instead of LaserVision.

In so doing, they have both helped and hindered their chances. Without the backing of Thorn EMI it's unlikely that JVC would have any chance of success with VHD. Moreover, if Thorn EMI had backed LaserVision the system would eventually have succeeded because technically it has the greatest potential. But Thorn EMI would have had to cope with the Philips commercial hierarchy, long famous for its bungling and missed dates. This would have made it hard even for Thorn EMI to get LaserVision off the ground.

But now that Thorn EMI has opted for VHD, there is a split in the market which makes the commercial viability of either system questionable. On the one hand there is LaserVision, technically superb and with the greatest long term potential, but hampered by the dead hand of Philips' commercial ineptitude. On the other hand there is VHD, backed by the undeniable commercial clout and get-up-and-go enthusiasm of Thorn EMI. But competing with the technically superior LaserVision.

To confuse the issue further, Thorn EMI is now showing signs of catching the Philips disease, while VHD is technically improving all the time. VHD is like a cross between LaserVision and Selectavision. The VHD disc is smaller than Selectavision or LaserVision (10in instead of 12in), and like Selectavision is pressed from conductive plastics. But, like LaserVision, the VHD disc is grooveless. Like Selectavision the signals are read by a capacitance electrode, and like LaserVision tracking is under control of servo signals. Like Selectavision the disc has to be housed in a caddy at all times, because it is sensitive to dirt and surface grease as deposited by human fingers. Again like Selectavision, the VHD disc must in the long term be susceptible to wear because there is friction contact between the tracking stylus and disc surface.

But there is no groove to degrade and so far no-one knows how long a VHD disc will

play without visible or audible signs of wear. Of course it's unlikely that wear will ever be a problem with feature material, because no-one will play a disc enough times to wear it out. But if a disc is used for still frame information, where the same turn of the track is scanned over and over again, there could well be a wear problem. But again no-one knows the life span of a still picture track before damage sets in.

There is also the problem with VHD that it is not inherently capable of providing perfect still pictures comparable to those obtained from a LaserVision disc of half-hour format. (Note, incidentally, that a LaserVision disc of Long Play or one hour per side format is normally incapable of providing still pictures; to optimise information packing the disc rotates at a speed which continually varies, so there is never a fixed number of picture frames recorded for each rotation of the disc.)

The normal VHD disc, which offers one hour per side, records two full TV frames, or four interlaced fields for each rotation of the disc. Thus, unless the two frames are identical, there will be flutter on the screen when a still picture is displayed. Perfect still pictures can be obtained by the expensive expedient of using a video frame store which freezes a video picture in a computer memory at a cost of many tens of thousands of pounds for the circuitry. The LaserVision Long Play disc can, of course, also provide still frames in this way, as can Selectavision. More economically the VHD disc can be specially coded so that every frame is recorded twice. For normal play this type of disc, christened Type II, is run at twice conventional speed and, when the tracking stylus is stopped, it produces perfect still pictures. But it only runs for half-an-hour per side.

Be warned, demonstrations of the VHD system always fudge the issue of still frame. When VHD is marketed in the UK (Thorn EMI promises June or July 1982), you should be absolutely sure of what you are seeing when a still frame is displayed. Don't be embarrassed to ask whether the player is being used in association with an expen-

sive video frame store, or whether the disc is a specially coded type which only runs for half-an-hour or can only produce still pictures at pre-selected points in the programme where each frame is recorded twice.

You will also have to watch out for naughty tricks when JVC and Thorn EMI demonstrate the worldwide compatibility feature of VHD. As previously reported, they doctored the TV sets being used for a press conference at the Berlin Radio Show, so that the gaps in the picture normally left when a 525-line NTSC disc is played on a 625-line PAL or Secam system were covered up. Exactly the same stunt was being pulled at the Japanese Electronics Show last October. Again be warned.

The commercial goings-on inside Thorn EMI also have to be encountered to be believed. Over the past year almost every week has brought the announcement of some new appointment. The company now seems to be bulging at the seams with highly-paid executives who are employed to scout the world for new programme material to put on VHD format. These executives, all apparently cloned from a standard public school image, seem as happy to fight amongst themselves as with the opposition. The various Thorn EMI video departments now resemble an Indian camp, with all chiefs and no warriors. It remains to be seen whether this extraordinary circus gets its act together in time for the launch.

It also remains to be seen whether the disc pressing plant which Thorn EMI is building in Swindon comes up with the goods. Thorn EMI reckons there will be 100 employees in Swindon, and the factory will be in full production by April 1982. The VHD discs will be produced on presses which resemble conventional audio disc presses.

JVC in Japan has already proved that it is possible to produce VHD discs on modified audio presses. But JVC in Japan has an enviable reputation for producing blemish-free audio discs. EMI in Britain is capable of producing good audio discs, but in the past has seemed content to produce



can see (from left) a Pioneer LaserVision disc being demmed, a display of Selectavision hardware, Panasonic's remarkable machine for both playing back and

some pretty awful pressings for sale to the poor defenceless public.

Sensibly Thorn EMI have kept much quieter about launch dates and launch plans than Philips. The decision to delay US and Japanese launch until next summer, to coincide with Europe, was a setback. But there is a general feeling in the video trade that the company, backed by the technical expertise of JVC, will come out fighting on schedule.

We shall see. Whatever happens it will be endlessly entertaining to watch Thorn EMI-JVC and Philips posturing in public next Summer. Both companies have the same problem. They are offering a product that is too late. So they now have to convince the public that a videodisc player, which cannot record programmes, has advantages over a video cassette recorder, which can both record and play back pre-recorded material. There will, of course, be an opening for sales to video enthusiasts who already have a cassette recorder. And people who must have the latest will be delighted to buy. So will people who love to collect things. But this is not a truly mass market. Quietly, the companies backing videodisc are girding their loins for a less buoyant market than they originally foresaw. It's also an odds-on certainty that the cost of pre-recorded video cassette tapes will come down sharply as videodiscs hit the shops. This with further damage disc sales potential.

Although videodisc is too late, it is also too early. LaserVision players could be much cheaper, and simpler, if reliable low cost solid state laser diodes were available in bulk. But, as explained, they aren't as yet. There is also the looming spectre of a record-capable videodisc. Already Philips and Matsushita (and even RCA in America) have announced laser-optical videodisc systems which can record computed data or still pictures and then replay them. The laser is switched to high power and burns signal pits into the surface of a blank disc. At lower power the same laser reads the pit signals in the usual way. TEAC and Mitsubishi also have similar recorders. Sharp and Matsushita (Panasonic/Technics) are also working on a similar system which uses a laser to record signals onto a magnetic disc. The laser beam alters the magnetic characteristic of the coating material.

The Matsushita still picture disc recorder, which puts 15,000 still pictures onto an 8in disc, is already of table-top size and recommended for educational and industrial use as a picture store. It is only a short step now to a videodisc which records moving pictures and sound, like a video cassette recorder. There is even the chance of an erase facility, by reconstituting the surface coating. The question is not so much whether the system can be developed, and at a price which the public can afford, but whether the companies capable of developing such a system will be willing to do so.

It would currently be commercial suicide for any company in the video business to demonstrate their commercial commitment to a record-capable videodisc system. Such commitment would immediately undermine the already uncertain market for VHD, LaserVision and Selectavision. It would also undermine the sale of videocassette recorders. Although Sony has come out publicly against the domestic use of videodisc, the company would still suffer serious commercial hurt to Betamax if it developed and announced a record-capable videodisc.

It is impossible, therefore, to guess how close the major electronic companies are to the development of a low-cost videodisc recorder. The only thing likely to accelerate development of a record-capable domestic videodisc system would be the commercial failure of the currently proposed videodisc systems: LaserVision, VHD and Selectavision. It is hard to see how a record facility can be offered for either VHD or Selectavision. But it might be possible to offer a record-capable version of LaserVision which is compatible with the existing format.

This, then, is another reason why the optical approach must surely prove the most attractive in the long term. It also explains why Thorn EMI are devoting such

efforts to the compilation of an attractive catalogue of software material to back up the launch of VHD.

Software, they rightly recognise, is the key. The system which is backed by the best catalogue of recorded material will be the most likely to make commercial inroads. In the long term, videodiscs, especially LaserVision discs, will offer the facility for inter-action. The user will interrogate the disc, like a computer. When you look something up in an encyclopaedia disc you'll see a short action sequence to illustrate a factual point. If you want to change the washer on a tap, you'll refer to a DIY videodisc which shows you how to do it. When you buy by mail order, you'll view what's on offer by playing a videodisc catalogue.

But it's unlikely that anyone will buy a videodisc player for the sole purpose of playing encyclopaedia, DIY or mail order catalogue discs. These will be secondary uses. Once the player is in your home, you may well use it interactively.

But you'll only have it in your home if you have already been tempted to buy it to play other, more immediately attractive, material. The big question is whether the kind of material on offer with VHD and LaserVision will tempt you to buy the system. If it's just feature films, already screened on television or available on video cassette, then the temptation may not prove strong enough. If it's esoteric material, like opera or art, then the market will be limited. Perhaps majority appeal musical material, like rock shows, pop concerts and orchestral works might be the answer. If the music is good enough, the disc can be played with or without pictures to suit the occasion. What are needed are programmes so attractive to the mass market that they make buying a videodisc system a must.

Let's hear from you, our readers, about what programme material on disc you would find irresistible. What would make you buy a videodisc system instead of video tapes? We'll publish the best letters for the benefit of Thorn EMI and Philips.



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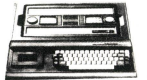
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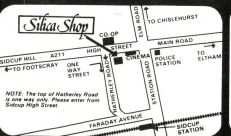


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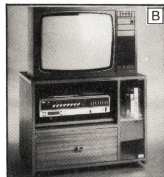
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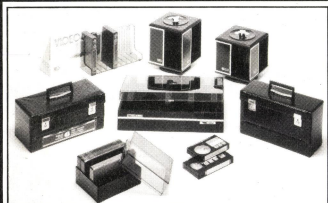


VIDEO ACCESSORIES



The new range of Emco video furniture consists of two TV/Video Cabinets and a TV/Video Stand known quite simply as A, B and C. Cabinet A, at £69.50, comes in a choice of oak, walnut or black ash. Measuring 737mm wide by 450mm deep with a height of 575mm, smoked glass doors open onto a sliding shelf which holds the video recorder. A 200mm deep storage drawer holds videocassettes. Cabinet B costs £69.50 and is available in the same choice of finishes. The dimensions are also the same as A except that the sliding shelf has an internal width of 312mm. The cassette storage cupboard at the side has a glass door. Emco's TV/Video Stand, at £39.75, also comes in the choice of three finishes. The video recorder sits on a sliding shelf and the upright columns are finished in matt black. It measures 800mm wide by 412mm deep and has a height of 350mm. All three units are self-assembly kits (I'm assured that they're easy to assemble) with castors for manoeuvrability. Available only by mail order from Emco, Charleets Road, Charleets Industrial Estate, Canvey Island, Essex (Tel. 03743 66741). The cost of packing and delivery is included in the above prices.

The Cambra Video Centre enables you to keep your TV, video recorder and videocassettes in one unit. A sliding shelf gives easy access to the video recorder and 30 VHS, Beta or V2000 cassettes can be stored in the three shelves at the bottom of the unit. The Video Centre costs £59.95.



For storing videocassettes, Knowin has a range which includes a carrying case (centre left and right) with a crocodile skin finish. There are two cases, one for VHS and one for Beta format cassettes. Both cost £8.75. A videocassette cabinet designed to hold all three formats is also available (centre). It is black with a hinged, smoked finish lid and costs £13.50. On a slightly smaller scale is a video box capable of holding six cassettes at £3.95 (bottom left). The rotating cassette stands (top right) hold 12 VHS or Beta cassettes. Made of black and silver plastic, the stand costs £12.75 and has a spring retention device to keep the cassettes in place in case of over-enthusiastic 'spinning'. Knowin offer head cleaners for VHS, and Beta machines for £13.30 each. Knowin's rack for nine library cases (Top left) costs £3.50 or comes complete with library cases for £11.99. More details: Knowin (UK) Ltd (Tel: 0533 403322).



Allsop Video Recorder Cleaners come with a bottle of cleaning solution and cost £13.90. More information from Allsop Marketing Ltd, Midlands House, High Street, Edgware, Middx.



This TV and Video Stand from Audio and Vision Furniture sells at around £34.99. A black square-tube frame supports walnut veneer shelves. Details: Audio and Vision Furniture Ltd, (Tel: 0902 51195).



Bib has an extensive range of video maintenance products in its Videophile Edition. The Video Recorder Maintenance Kit includes five Video Tape Head Cleaning Tools, a bottle of Video Tape Head Cleaning Fluid, a can of Dust-away Air Blast, Inspection Mirror, Anti-static Cleaning cloth, Crosspoint screwdriver and comes in a permanent storage case. Also included is an illustrated maintenance manual for VHS and Beta video recorders. The kit costs £9.98. More information from Bib Videophile Edition, Kelsey House, Wood Lane End, Hemel Hempstead, Herts HP2 4RQ (Tel: 0442 61291).



Bib offers a video recorder cover that 'breathes'. It allows damaging humidity and moisture to escape, while keeping out airborne contaminants and protecting the machine from corrosion and scratches. Designed to fit most VHS and Beta recorders, it comes in crease resistant grey material and costs £6.88.

Also available in the Bib range is a Tape Head Demagnetiser VE-6, at £8.74, which removes magnetic build-up. The Video Lens Care Kit VE-13, at £2.99, keeps a video camera lens free from dust and fingerprints. Bib's video Tape Splicer VE-9 costs £13.80. Home recordings can be given a professional touch with the Videocassette title and Label Kit. For £2.99 you get 10 self adhesive title card holders, 20 index cards, 20 self adhesive cassette body labels, two sheets of instant print letters and numbers, one print burnisher and an instruction leaflet. A new product which is due to appear in the Bib range this January is the VHS and Beta head cleaners at £10.99.



One of the products from the Cambra video storage range is the videocassette Carousel. There is a model for VHS or V2000 cassettes which holds 12 and another for 12 Beta cassettes. Both cost £9.99 and have a black and silver finish. They revolve through 360° and are stackable.



The Super Video 20 from Cambra holds 20 videocassettes of any format. It has a woodgrain effect finish and the top can be used for your video recorder. It costs £22.50. More information from Cambra, Cambrasound, Freedex House, 4-10 North Road, Islington, London N7 9HN (Tel: 01-607 8141).



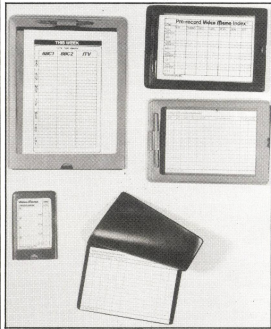
Cambra's Video System Cabinets come in two sizes. System 20, as the name suggests, holds 20 videocassettes of any format in two drawers and costs £23.50. System 30 costs £29.99 and holds 30 cassettes in three drawers. Both have a woodgrain effect finish.



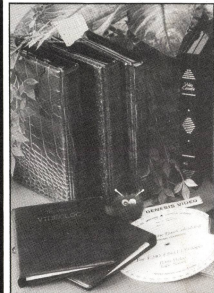
Spray on Bib's Anti-Static TV Screen Treatment VE-15 and wipe off dust, dirt particles, smudges and fingerprints. The treatment then retards the attraction of dust and dirt particles by preventing static build-up on a screen. It costs £2.48.



If you suffer from poor picture quality and background noise as a result from recording over a previous recording, Bib's Videocassette Eraser is intended to ensure a signal-free videotape. It is fitted with a thermal protected circuit and red current indicator—light. Complete with instructions for use, it costs £20.70.



These erasable pads are from the V. Mayes Printator range. They work on the same principle as the children's drawing pads where the picture is erased by pulling the pad from its sleeve. At the top left of the photo is the TVs Top Diary to keep a note of any programmes you may like to record during a week. It costs £2.95 and is 255mm x 195mm. Top right shows the Pre-record Video Memo which allows you to note time and duration of TV programmes. Costing £1.95 and measuring 200mm x 140mm, I would find this a more valuable item than the TVs Top Diary. For those who like a constant reminder to hand, there is a pocket-size Video Memo measuring 115mm x 75mm at £1.15. The Video Television Recordings pad has columns for the title of the programme, the tape number, time start, time finish, day and channel, running time and tape counter. This pad (centre right) measures 200mm x 140mm and costs £1.95. For a more permanent record, there is a pad of sheets pre-planned for video television recordings. Shown at the bottom of the photo, the pad measures 157mm x 120mm and costs £1.35. The Printator range is available from V. Mayes & Co (UK) Ltd, Luton Road, Dunstable, Bedfordshire LU5 4LH. An extra 45p should be added to cover postage and packing.



Genesis offer videocassette library cases in all shapes and sizes. They come in a laser finish with a choice of three colours — blue, gold or purple, a brown reptile finish; a dark brown heavily embossed antique finish; a suede finish in green, mustard, grey, brown, orange, burgundy, royal blue or black with gold embossed spine; and the standard coloured case which has a leatherette effect cover and comes in green, brown, orange, burgundy or blue. These cases hold VHS or Beta. The only case Genesis offer for the V2000 format is the triple format library case in black with a clear front. Prices for these library cases range between 80p and £1.05. Also in the Genesis range is a Video Index Log to enable you to keep track of up to 20 cassettes, costing £1.20. Finally Genesis offer a 'time remaining calculator' for £1.49. By taking a reading from the counter on a video recorder and setting that number on the calculator, it is possible to work out the remaining time on a blank cassette. Genesis Marketing Ltd are at 24 York Road, Northampton (Tel: 0604 36759).

Improve your image with Bib



Improve your Image with Bib

That in itself is a strong statement, but did you know that your VCR's ability to record and reproduce sharp clear video images diminishes with continued use. For optimum performance, tape heads and guides must be cleaned every 30 to 40 hours of running time. Oxide particles shed from the passing tape combine with room humidity and airborne contaminants (dust, lint, tobacco smoke, dirt etc.) to create harmful residues on your VCR's tape heads and guides. Left to accumulate, these deposits begin to hold the video tape away from the gap in your tape heads, substantially reducing the signal being recorded or reproduced. Video image quality quickly deteriorates into a 'fuzzy' or 'snowy' condition.

Bib Video Tape Head Cleaners

The Bib Videophile Edition Wet Cleaning System, unlike some other makes, cleans all the tape travel path. The unique, soft, non-abrasive velour gently removes all contaminants to give a clear, sharp picture image and undistorted sound.

Simple and easy to use it works wet or dry. A convenient compartment to store the bottle of special formula tape head cleaning fluid is incorporated in the cleaner housing. A few drops of liquid are applied along the slot in the front cover. The head cleaning cassette is then inserted into the machine and played like a regular video cassette for about ten seconds, and that's all there is to it.

For VHS Format Ask For Bib Reference VE22 Price £10.99.



For BETA Format Ask For Bib Reference VE-24 Price £10.99.



Bib Professional Video Recorder Maintenance Kit

This laboratory tested universal maintenance kit contains all that is needed to keep any type of recorder in first class condition.

Contains:-

- Five special Video Tape Head Cleaning Tools
- Special formula Video Tape Head Cleaning Fluid
- Can of patented Dust-Away Air Blast
- Inspection Mirror
- Anti-Static Cleaning Cloth
- Illustrated maintenance Manual
- Crosspoint Screwdriver
- Permanent Storage Case

For all format: recorders ask for Bib Videophile Edition Maintenance Kit Reference VE-2A Price £9.98.

Other Useful Bib Videophile Edition Products

- VE-9 1/2 (12.6mm) Tape Splicer Price £14.97
- VE-13A Video Camera Lens Care Kit Price £3.98.
- VE-15 Anti-Static TV Screen Treatment Price £2.48.
- VE-16 Video Recorder Dust Cover Price £6.88.
- VE-17A Title and Label Kit Price £3.47

Refills of Tape Head Cleaning Fluid are available in packs of two bottles. Reference VE-23 Price £1.47 (For VE-22 and VE-24)

Bib Video Tape Eraser

Poor image quality and unwanted background noise result from insufficient erasure of previously recorded material. Use Bib's Video Cassette Eraser to ensure that your video tapes are signal-free and ready to accept the highest quality recording your VCR can provide.

The Videophile Edition unit's powerful 2420 gauss magnetic field far exceeds the erasure capability of your VCR's erase head. Fitted with safe thermal-protected circuit and red current indicator light.



For all Tape Formats ask for Bib Videophile Tape Eraser Reference VE-3 Price £20.70.

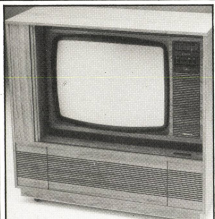
Available from branches of WH Smith, Panda stockists, and leading Video Stores. Should you have any difficulty in obtaining these products send direct to Bib Audio/Video Products Limited including 50p for p&p. For free Videophile range brochure send S.A.E.

All prices shown include VAT.



Bib Audio/Video Products Limited
Kelsey House, Wood Lane End,
Hemel Hempstead, Hertfordshire, HP2 4RQ.
Telephone: (0442) 61291 Telex: 826437.

VIDEO ACCESSORIES



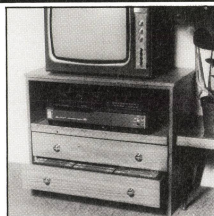
Ferguson offer a 'Luxury' television and video cabinet in either teak or walnut finish. It's designed to house the Ferguson Video-star 3V23 video recorder and is suitable for a 22in TV (model 9724) or a 26in TV (model 9726). Earlier Ferguson models will also fit the cabinet but not the latest machines which are slightly larger in depth. The cabinet is expected to sell at around £85 for the 22in cabinet and £95 for the 26in version. An optional loudspeaker kit (TA125) can be incorporated in the cabinet either side of the video recorder, but these must be fitted by a Ferguson dealer.



If you haven't the room (or the money) for a TV and Video cabinet, Ferguson's TV and Video Stand would seem ideal. This is again designed for the 3V23, but being an open stand it is more likely to take a wider range of video recorders. It is also a lot cheaper at around £16 for model 9727/1, which holds a 20in or 22in Ferguson TV, and £18 for model 9727/2, which holds the 26in range.



The video products in Edwards hand made furniture range include the De Luxe Video Cabinet. Made of real teak veneered wood, the cabinet costs £127. A sliding shelf holds a video recorder and the drawer beneath can take up to 30 videocassettes. Hidden castors provide ease of movement. The cabinet is also available in other finishes to special order — oak, sapele and American walnut. Available from Edwards Construction Co, 4 Brunswick Drive, Harrogate, N. Yorkshire HG1 2PZ (Tel: 0423 60921).



Edwards' Videoflex is designed to take most video recorders on its sliding shelf which gives easy access to controls. It has two drawers to hold up to 60 videocassettes. These shelves can be replaced by a 'selector' unit which is an open rack for cassettes. It costs £72 and is available from Edwards Construction Co.



Video recorders are prone to the odd knock, especially if you have young kids around the house. Milty has launched a protective cover which it says fits most VHS and Beta machines and provides protection from dust, fluff and moisture, as well as those fiddling fingers. A soft lining protects the video recorder from scratches. The cover is 'de-luxe leather grained' vinyl in either Chamois or Burgundy colours with a clear front panel permitting a view of the controls. It is priced at £8.90. More information from Milty Products Ltd, New Mansion House, 173-191 Wellington Road South, Stockport, Cheshire SK1 3UA (Tel: 061-480 8142).



The Deluxe video/TV unit (above) from Panama fits most TVs and video recorders. It's a useful unit with a sliding tray for easy access to the video and shelves for 32 videocassettes on the sides. Available in teak or white with smoky brown perspex ends to the cassette shelves and a smoky brown perspex door which slides out of the way of the video space, the Deluxe model costs £59.90. Panama also offers an Economy model for £39.90. This model does not have the sliding shelf or door and has clear plastic ends to the cassette shelves. Both models are available from Panama Products, Unit 20, Zennor Road, Industrial Estate, London SW12 0PS (Tel: 01-673 3316). £3.00 should be enclosed added for delivery.



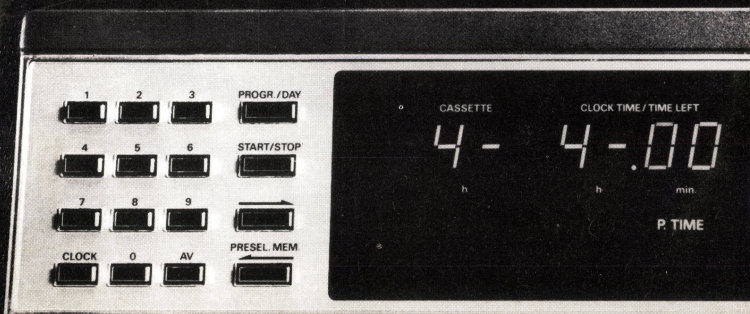
The VidPak is a PVC videocassette holder with a fold flat pocket designed to hold all three formats. Being almost the same size as the actual cassette, the VidPak is a spacesaver. Its card-board backed 'book' covers protect the cassette, while small apertures in the pocket prevent condensation which can damage the cassette. Vidpaks come in a number of designs, some of which are shown in the photo. You might like to store your westerns in cowboy and Indian printed covers or the kiddies' cassettes in fairy tale character designs. Standard black covers with a clear PVC wrap are also available. These can take the original artwork or you could give home recordings a professional touch by designing your own artwork. Prices vary between £1 and £1.50. More information from VidPak (Tel: 01-346 5698) or, Securette Ltd, Bluebridge Industrial Estate, Halstead, Essex (Tel: 0787 475912).

The Lawco Video 90 Cabinet pictured here can accommodate a video recorder, 30 videocassettes and the top of the cabinet is ideal for a television. The cabinet is mounted on castors. It costs £79.95 and comes in a choice of teak, mahogany, walnut, pine or white finish. More information from Lawton Ltd, Lawco House, 60 Vauxhall Road, Liverpool L69 3AU (Tel: 051-227 1212).





THE MOST ADVANCED VIDEO SYSTEM
NOW HAS ITS MOST ADVANCED MACHINE.
THE GRUNDIG VIDEO 2x4 SUPER.



Developing a video recorder is rather like choosing which one to buy. It's something you don't rush.

You take your time, considering every conceivable option from every conceivable angle.

With us, that process eventually led to the machine shown opposite.

By the time you've finished reading this ad, chances are your deliberations as to which video to buy will lead you to exactly the same conclusion.

The Grundig Video 2x4 Super.

There are at present three basic video systems around.

The one on which our machine is based we had quite a hand in developing: The Video 2000 System.

Rather than simply being a slightly modified version of what went before, it's a totally new system; and the most obvious difference between it and the two other systems is that Video 2000 machines play flip-over cassettes.

Of the various time lengths available, the longest, at four hours a side, totals eight hours.

To record the same amount using even the longest single-sided cassettes available you'd have to buy two cassettes.

In other words, building up a library of recorded material is going to cost you more and take up a lot more space.

As a Video 2000 machine, the Grundig

Video 2x4 Super also features something called Dynamic Track Following.

Briefly, that means that heads automatically follow the video signal on the tape and do away with all tracking adjustments.

In other words, whether you're playing your own, a friend's or a bought or rented pre-recorded cassette, you're assured of a crisp, clear, fuzz-free picture.

As a Video 2000 machine, the Video 2x4 Super has one of the lowest hour-for-hour recording costs, infallible in-system cassette compatibility and fuzz-free, fuss-free pictures.

So why buy our Video 2000 machine when any other Video 2000 machine can do all that too?

As we said at the beginning, we played quite a part in the development of the Video 2000 System.

Given our reputation for Teutonic thoroughness, however, we didn't just leave it at that.

When it comes to producing our particular version of a Video 2000 machine we added a number of typically Grundig refinements.

That's why, of all Video 2000 machines, the Grundig Video 2x4 Super is the only one with a 99-day automatic recording memory.

In other words, you can programme it now automatically to record something for you up to three months away.

Five different 'somethings', in fact. On different channels.

And on different days.

In comparison, the advanced recording memory of all the other machines is decidedly short-lived.

By about two and a half months.

That, and many of the other features that put the Video 2x4 Super streets ahead of any other video are, of course, the result of the typically Grundig, totally practical application of the very latest advances in micro-processor technology.

In consequence, as sophisticated and feature-packed as it is, the Video 2x4 Super is a remarkably easy machine to use.

Equally important, thanks to viewing features ranging from fast and slow motion to interference-free freeze-frame, it's also a lot of fun.

The Grundig Video 2x4 Super.

Based on the most advanced system around, it's the most advanced video money can buy.

GRUNDIG
PRECISELY GRUNDIG.
PRECISELY RIGHT.

The West End's local hi-fi and video specialists. We're near to Goudge Street and only five minutes walk from Tottenham Court Road tube station.

VIDEO VALUE

Visit our enormous showrooms packed full with the latest in hi-fi and video equipment. Check out our low, low prices — all models are on display, so ask our expert staff for a demonstration.

Panasonic... Purchase Plus!

PANASONIC NV 7000

- 14 Day, 8 Programme Timer, Feather Touch Operation and 12 Mode Remote Controller.
- Die-Cast Chassis ensures a consistent playback speed and lasting picture quality
- Dolby Noise reduction



PANASONIC NV 2000B

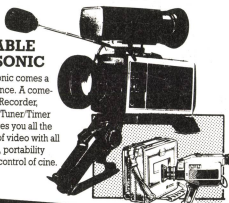
- New reduced-size aluminium die-cast chassis.
- 14 day/ON-OFF TIMER.
- Lightweight compact size.
- Slow and quick search.
- Feather touch operation with micro-processor.
- Sophisticated design.



"THE NEW NV7200 NOW AVAILABLE"

PORTABLE PANASONIC

From Panasonic comes a new experience. A complete Video Recorder, Camera and Tuner/Timer outfit that gives you all the advantages of video with all the lightness, portability and camera control of cine.



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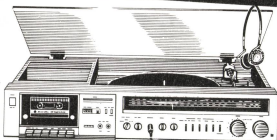
Look no further than us. We stock the latest high technology Panasonic TVs renowned for their advanced features and reliability.

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SG165 MUSIC SYSTEM	POA
TECHNICS SYSTEM Z11	POA
TECHNICS SYSTEM Z22	POA
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SONY SYSTEM Z1	£418.00

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JVC GX 88	£475.00
JVC GX 33	£345.00
PANASONIC WV 3200 E	POA
PANASONIC WV 3000 E	POA

VIDEO CASSETTES

	Qty. 1	Qty. 10
PANASONIC E180	£8.25	£80.00
JVC	£8.25	£80.00

MAIL ORDER - Min Qty 10 - £1.50

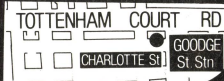
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A PEACH OF A PAIR

Stan Curtis checks out two of the latest VHS-format video recorders: Akai's VS-5EK and Hitachi's VT-8300E

AKAI VS-5EK

The VS-5EK is one of two new models from Akai, the other being the VS-10EK which offers a full-function remote control, 32 (yes!) television channels and audio noise reduction at an extra cost of £70. The model under test is already comprehensively equipped with all the so-called 'trick' features, an infra-red remote control and an elaborate timer system.

Indeed on first looking at this machine I had to confess to being baffled and I was glad that the importer had included an Owner's Manual — so often with new models we receive a photocopy of the provisional manual just after we've finished typing the review. The tape motion controls seemed to be straightforward but as we shall see, you don't get any television pictures unless you apply a little grey matter.

Akai have gone the sloping front route to produce 'high technology' appearance aided by an amazing blue multi-digit/multifunction clock display set behind a full width perspex panel. By my arithmetic that clock can display up to 23 numerals or legends so be warned! The case work is finished in the silver-grey colour currently popular with the manufacturers.

The front panel breaks down into three functional layers, the top one of which

HITACHI VT-8300E

This new VT-8300E model replaces the popular VT-8000E recorder which I had just finished testing when Hitachi announced that it was discontinued! It is the most basic of Hitachi's mains powered models (although well equipped with features), the more expensive VT-8700E model offering automatic tape indexing, a full-range tape-speed control, a battery back-up supply for the timer, an automatic channel locking facility, a 3 week 8 programme timer and an infra-red remote control — although there are plans to offer this remote control as an optional extra on the VT-8300E.

The appearance and specification of the VT-8300E are very similar to the old 8000E model, the only visible difference being in the design and layout of the tape motion control panel. But I'm assured by Hitachi that quite a lot of work has gone into the redesign of the electronic circuits in particular. Much use has been made of purpose-made integrated circuits which have replaced whole chunks of the old transistor circuits and avoided many of the problems inherent in their complexity. The chief benefits of the new circuitry are claimed to be improved reliability, ease of service (far fewer circuits), greater consistency of performance, and lower power

This month we look at two new VHS recorders, the Akai VS-5EK and the Hitachi VT-8300E. Both models are at the expensive end of the market being priced at £650 and £800 respectively, yet both recorders are now the basic models in each company's range. Even so there is a great difference between the two models and their design philosophies. The Hitachi uses the transport mechanism and many components from a tried and proven model coupled to the latest in circuit designs optimised for performance and reliability. The recorder has been kept essentially simple for ease of understanding and use. New technology has not been adopted for technology's sake; rather, if an existing proven assembly did the job as well and as cheaply then it was retained.

By contrast the Akai appears to positively exhale its technical virility with its complex multifunction display, comprehensive timer, self-seeking automatic channel finder and infra-red remote controls. The respective sales of these two models will depend upon the marketing approach (although at the moment anything called 'video' sells like the proverbial) but I would expect the Akai to appeal to the second generation man who has already owned a recorder and feels he knows a thing or two about video. The Hitachi though will not frighten the first time buyer (renter), its very simplicity becoming a significant feature.

The familiar appearance of the Hitachi could also pay dividends in a strange way. The manufacturers are developing new models at what seems to be an ever increasing pace with the result that 'old' trusted models disappear almost-before they have become established. Yet customers and dealers are both basically lazy people who much prefer to deal with a model they're familiar with or have heard

good things about. This process of market acceptance takes at least six months and probably well over a year, but now some manufacturers seem keen to renumber and revamp their range on an annual basis thereby incurring for ever the wrath of those who've just spent a lot of money on the obsolete version.

This month's tests see a slight alteration to our laboratory procedures with the introduction of some measurements via the RF (eg. aerial) connections. After discussion with my fellow reviewer Gordon King, we decided that although measurements made on a Video IN/OUT basis are useful for analysing performance standards they do not always reflect the results seen by the user on his television receiver. This is because the RF modulator in the VCR can degrade the audio and video signals during playback and similarly the demodulator (or decoder) can degrade the incoming aerial signals during recording. So we will now be making some additional checks to establish that the RF stages are of reasonable quality.

I should remind readers that, as a rule, we only test samples of the recorders as submitted and they may offer above the average performance (of that particular model) or, on occasion, below the average performance. Therefore I do suggest that readers should see a working demonstration of their intended model before committing themselves to the purchase. I am very concerned at the variability in performance levels that I find when inspecting different samples of the same model, and at the way in which this inconsistency could, in part, invalidate much of the help we try to give the consumer. It is a subject we are very aware of and we will be making some investigation into it in the coming months.

RECORDER REVIEWS

contains all the tape transport control buttons, the second layer the clock/timer display and the infra-red receiver for the remote control, and the bottom layer the controls for setting the timer, selecting the TV channel, and various subsidiary controls. The whole panel, although visually quite complex, avoids the need for any hidden compartments and lift-up flaps.

The tape-motion switches are of the light action kind with built-in LED indicators to confirm their operation. They are under the control of a full logic system that has sufficient memory to implement complex instructions such as going from Fast Rewind into Play. The advantage is that you need never bother with the Stop button. However the control system has a routine which can catch you unawares; the automatic rewind when you reach the end of the tape. It's a nuisance if you want to review the last 5 minutes — but it can be overridden by pressing the Stop button. The

Akai actually gives a short 'beep' sound at the end of the tape although I found it a little too quiet in domestic surroundings. This alarm also sounds if the tape breaks or you install a pre-recorded cassette with the record tab removed. Potentially quite a useful concept.

The Akai has a fast picture search facility which works, and works well, in both directions. Having used this facility in many recent VCR models I would find it hard to recommend the purchase of a model without it except for a low-budget machine — although even the Sony C5 offers this facility. Fast picture searching saves an awful lot of frustration. My usual problem is deciding to record a programme at the last minute and then trying to find a point on a part-recorded cassette where I can start the new recording. With picture search it takes under a minute; without it it's pot-luck time.

The television receiver can be quickly

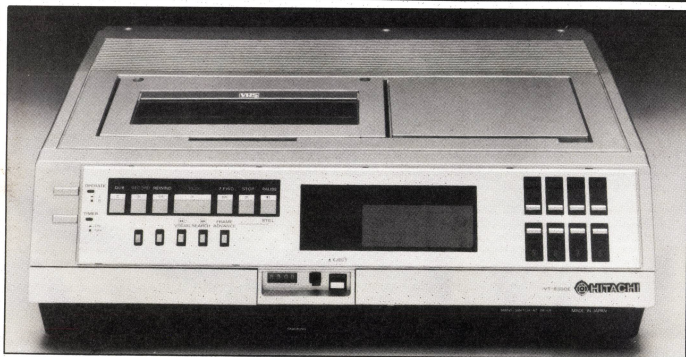
lined up to the Akai which has a built-in test-signal generator and a range of adjustment of its UHF frequency to avoid 'beating' with a broadcast transmission. However lining-up the television tuner section will be a whole new experience to those customers who are used to the good old mechanical presets. The Akai's system is similar to that used by Philips and Grundig and is fully electronic. A pointed plastic probe (provided, but you can use a matchstick or whatever) is pushed into the hole marked TV SEARCH and then the tuner scans the wavebands until it finds a broadcast station onto which it can lock. You then poke the fine tune (\pm) holes to get the sharpest picture and then you're ready to commit that station to Memory and the tuner moves on to the next broadcast. Thus your television stations become locked into the memory as 1, 2, 3, ----- 16, and it's up to you to remember which is which (and that's bad news) and also that 1, 2 and 3 will not automatically correspond to BBC1, BBC2 and ITV — it all depends upon where you live.

Now, with the tape moving and a television programme on the screen, some of the other facilities of the VS-5EK can be discovered. The tape counter is entirely electronic with a four-digit readout that stands at 2050 after playing an E-60 tape. The counter has a memory rewind so if you reset it to zero at the start of a recording (regardless of its place on the cassette) then when you subsequently rewind the tape it will stop at the start of the programme.

The timer installed in the VS-5EK is both comprehensive and unusual. In its basic



AKAI



HITACHI

consumption. Can't be bad, although no-one mentioned the magic words 'lower cost'!

Hitachi have always had a reputation for neat uncomplicated styling and the VT-8300E is no exception. The ubiquitous in '81' silver-grey case has a slightly sloped front panel but the control groups have been kept tidy and are positioned at either side of the clock display. Those to the left

are for tape-motion control, those to the right for television channel selection, and the various timer and clock controls are under a lift-up flap alongside the top-loader cassette mechanism.

The tape-motion switches are light action and illuminate LED indicators set into the legend strip. These switches and the tape transport are under full logic control so it is not necessary to press the

Stop button between each change. The Pause control gives a still frame on playback and, with the use of a second button, the picture can be advanced one frame at a time. Fast picture search is available in both directions using a latching switch so it is necessary to press Play or some other function to disengage it. All these tape motion functions are under the control of the remote unit which is coupled

form it is a 14-day 5-event unit permitting the pre-programming of week, day, time-on, time-off and television channel. But then two additional programmes permit operation at the same time of every day of every week on the same channel. Then finally the last two programmes (making nine in all) permit operation at the same time on the same day of every week for ever and ever. So there seems to be little that this timer can't do although you will need to read the manual a few times before you'll have confidence in your programming ability. One additional timer function is the so-called 'SLEEP' control. It's actually quite a good idea and it's for those occasions when you're recording a television under manual control then get bored and decide to go to bed. You simply programme in the end of the programme time, press Sleep and pleasant dreams or something like that.

The Akai remote control is cordless, that is it works by infra-red transmission and offers full control over all the functions. It worked very well even though it kept being mislaid. I've always believed that there should be a paging button on the VCR marked 'Find Remote' and when it is pressed a loud 'beep' would emit from the remote control as a guide to its whereabouts.

Finally I discovered in the depths of the Owner's Manual that the Akai's display can show another legend. This is the bold word 'Breakdown' and is intended to tell you that the machine is no longer working. Presumably it is intended for those viewers who can sit in front of a blank screen for hours without seeing anything wrong!

to the recorder by about five metres of cable. The tape counter is the usual four digit mechanical type with memory rewind, although the control button for this feature is most oddly hidden in an otherwise empty compartment under a front panel flap.

The cassette loading is Hitachi's delightfully smooth fluid damped mechanism which always makes a motor-like whirr when used. Unfortunately the mechanism on the test sample was more than a little stiff with two-handed operation becoming necessary.

The television tuner section can be preset for 8 stations and comes conveniently pre-labelled for BBC1, BBC2, ITV1 and ITV2, both above the selector switches and alongside the bank of tuning presets. These are located behind another hinged panel under the station switches. They can be turned by your fingers but it's easier with a tool so Hitachi have provided one together with a fixing clamp so that you can keep it in a safe place after use.

Audio dubbing is made possible and the new soundtrack can be directly made from a microphone or fed into the audio line inputs. Both the audio and video connectors are of the Phono type.

Finally the Hitachi timer which, although of limited specification (10 day 1 event), is quite simple to set up and use. All the controls are under a lift-up flap next to the cassette mechanism and life is made just that little bit easier through the provision of a set of instructions on the inside of the flap.

So, although the Hitachi has a limited list of special features, it does have one outstanding feature — ease of operation.

IN USE

To get to grips with the Akai it took quite some time and much reference to the instruction manual. None of the operations were particularly difficult to master but they are not obvious when you look at the control panel and can only be performed by following the step-by-step procedures of the manual. Once the VS-5 was set up the results were very good, the picture quality being above average subjectively. The picture was slightly 'soft' in nature but the colour quality was good with a low-level of chroma noise and little noticeable chroma shift. Format compatibility was fine but the tests demonstrated some of the limitations of present-day VHS models. A tape recorded on a Ferguson machine was reproduced superbly, the quality being above that achieved when the tape was played back on the Ferguson. Yet at the same time the Akai couldn't make such good recordings!

The still frame performance was thought to be quite good, as was the fast picture search. Very little picture disturbance was experienced, just a few thin noise bars which made picture viewing quite acceptable.

Sound quality was fairly typical for a VHS model, although subjectively the noise seemed to be low and less noticeable than the measured result suggests.

The laboratory tests revealed that the Akai had fairly limited resolution; the video bandwidth only just extending to 2.8MHz. This poor resolution no doubt contributed to the fairly soft picture quality previously described.

IN USE

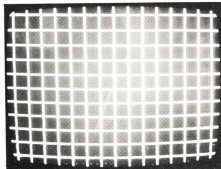
When I started to use the Hitachi I was immediately struck by a major ergonomic problem which many weeks later was still an irritation. The Stop switch is small and unnoticed whilst the Play switch is large and dominant. As a result I kept pressing Play when I wanted Stop. I can't really see any justification for this illogical break with convention and hope that it is not perpetuated in later models.

The second problem I experienced almost drove me to distraction before I discovered the solution. All recordings showed apparent mistracking in the middle of the picture, evident as a group of noise bars. Finally after checking and rechecking my equipment I found that the problem only occurred when the video mode switch was set to Auto but not when set to Colour or B/W.

Thereafter the results were fine and above-average picture quality was achieved. The chroma noise, usually very noticeable on a pure blue, was commendably low and this contributed to the good colour quality.

Still frame performance was about average although it normally took a couple of seconds before the picture stabilised.

In the laboratory a fairly average set of figures was recorded for both audio and video performance. The video noise level was found to be very low although this didn't correlate exactly with my subjective assessment (see photographs).



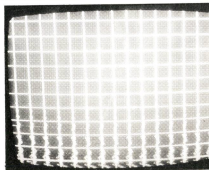
Akai still-frame

THE VERDICT

The Hitachi VT-8300E has a useful if not complete range of facilities at a moderately low price. On a technical level the results were quite acceptable if unexceptional, and the subjective assessment of the picture quality showed the Hitachi to achieve an above average standard.

Ergonomically I was unhappy with the layout of the controls, particularly the Stop button, but this model was easy to understand and operate. As it stands, the VT-8300E can be recommended as offering a well balanced performance and giving good value for money. Buyers who seek a more comprehensive range of facilities would do well to consider the basically similar Hitachi VT-8700E.

By contrast the Akai offers a fine specification with automatic television tuning, a sophisticated timer system and a full function remote control. Furthermore its sound and picture quality was found to be subjectively very satisfactory despite the fairly mundane performance figures. The 'high-technology' image of this recorder appealed to many of my friends who saw the machine, but an equal number were 'psyched-out' by its apparent complexity. So again a recommendation but tempered by caution if you're the type who can't follow written instructions to the letter. Once mastered, the Akai offers great ease of operation and the ability, through its superb timer programming, to set up a week's schedule of recording every Sunday after which the machine can be left alone apart from the occasional reload of tape. It's the sort of VCR you grow to like and, worse, the sort that could become indispensable to your lifestyle.



Hitachi still-frame

A feast of entertainment

THE WILD GEESE

Their home is the battlefield. Their calling is war. Their only loyalty is to each other. They are a crack team of ruthless mercenary paras. . . . Few are chosen. Even fewer return. 0013C VHS/Beta

CABARET

The award-winning smash hit musical that shot Liza Minelli to stardom. Cabaret portrays in music and song the delights and decadence of pre-war Berlin's cafe society. 7009C VHS/Beta

THE SEA WOLVES

The true story of one of the most closely guarded secrets of WW II — how 18 part time soldiers smashed Hitler's Indian Ocean U-Boat spy ring. 0049C VHS/Beta

SILVER DREAM RACER

A hell-for-leather tale of unbridled ambition, love and jealousy set in the high-octane world of Grand Prix motorcycle racing. Contains superb racing action scenes. 0052C VHS/Beta

CITY OF FIRE

A cigarette falls on dry grass as gasoline leaks into the City sewers and just another hot American day suddenly erupts into a blazing furnace which makes 'Towering Inferno' look like fire practice. 0050C VHS/Beta

THE BERMUDA TRIANGLE

Mind-bending tales of disappearing ships, aircraft and men. Over 700 craft

have vanished in this deadly corner of the Atlantic. This film searches for the truth behind one of the world's great enigmas. 2011C VHS/Beta

JUNIOR BONNER

Steve McQueen stars as Junior Bonner, a Rodeo Rider returning defeated and broken by the meanest bull in the county, to find his house deserted and his family in big trouble. His only solution is a re-match with the bull. 8005C VHS/Beta

BUGSY MALONE

Alan Parker's enchanting musical fantasy with an all child cast set in New York's gangland in the roaring twenties. 7000C VHS/Beta



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Name _____

Address _____



RANK VIDEO

Rank Video Library, P.O. Box
Great West Rd, Brentford, Middlesex TW8 9JL

DATA AKAI VS-5EK

£650

14-day 9-event timer
Sleep mode timer
Audio dubbing
1 week battery backup on timer
Picture search

Still frame
Test signal generation
16 self tuned TV stations
Remote control
Memory rewind

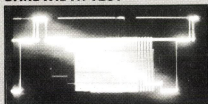
RESOLUTION TEST



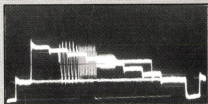
RESOLUTION RESULT



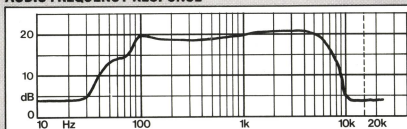
BANDWIDTH TEST



BANDWIDTH RESULT



AUDIO FREQUENCY RESPONSE



Akai (UK), Unit 12, Haslemere Heathrow Estate, Silver Jubilee Way, Middx. TW4 6HN (Tel: 01-897 7171).

LAB RESULTS

VIDEO PLAYBACK
Video bandwidth 2.8MHz
Video signal-to-noise 40dB
Chroma noise Good
Chroma/luminance shift Good
Still frame quality Very good

AUDIO PLAYBACK
Signal-to-noise ratio 43dB
Wow and flutter (DIN) 0.24%
Distortion (OdB, 1kHz) 1.9%

REVIEW RESULTS

Audio quality: Good
Picture quality: Above average
User convenience: Potentially high once the controls are mastered

LIKES

Remote control
Picture search
Versatile timer

DISLIKES

Owner's manual
Television tuner

DATA HITACHI VT-8300E

£600

10-day 1-event timer
8 television channels
Picture search
Memory rewind
Still frame

Fluid damped cassette mechanism
Test signal generation
Cable connected remote control (motion functions only)

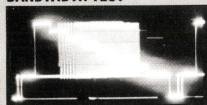
RESOLUTION TEST



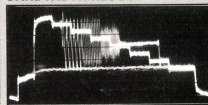
RESOLUTION RESULT



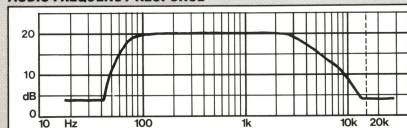
BANDWIDTH TEST



BANDWIDTH RESULT



AUDIO FREQUENCY RESPONSE



Hitachi Sales UK Ltd., Hitachi House, Station Road, Hayes, Middx. (Tel: 01-848 8787)

LAB RESULTS

VIDEO PLAYBACK
Video bandwidth 2.8MHz
Video signal-to-noise 42dB
Chroma noise Very good
Chroma/luminance shift Good
Still frame quality Average

AUDIO PLAYBACK
Signal-to-noise ratio 41dB
Wow and flutter (DIN) 0.2%
Distortion (OdB, 1kHz) 2.7%

REVIEW RESULTS

Audio quality: Average
Picture quality: Good
User convenience: Average

LIKES

Simplicity of operation
Picture quality

DISLIKES

Design of the Stop control



MICROPHONE

JVC have recently developed a microphone that offers exciting possibilities to both the television and the recording engineer. It is their variable directivity or 'zoom' microphone.

When a programme is recorded using either film or video cameras there is usually much use made of the zoom lens with the picture changing from a distant to a medium shot and then to a close shot. For many recordings the soundtrack is un-

affected by the picture perspective — a music concert will have the music held in constant in level regardless of whether the camera is showing the whole stage as seen from the back row or is showing a close-up of the vocalist's face. But for both drama and documentary work the sound perspective should change as though the viewer/listener is sat astride the zoom lens and moving in towards the narrator in step with the picture captured by the lens. Hitherto

this has not been possible and instead two microphones have been used; one close-up and one more distant and the sound engineer has mixed from one to the other to follow the visual image. This apparently unsophisticated approach usually works well because the brain, when presented with excellent visual clues of the sounds origin, makes allowances for the audible inconsistencies.

The JVC MZ-500 zoom mike is, in fact, the



ZOOMING IN

Stan Curtis sounds out a new JVC 'zoom' microphone that's aimed at the video enthusiast but which could herald a 'universal' mic capable of meeting the needs of all home recordists

latest type of ultra-directional microphone but is made such that its directional characteristics can be varied to wide extremes. So for distant shots the microphone needs to pick up the ambient sound of, say, the whole street and thus needs to be almost omni-directional or a wide cardioid (uni-directional) shape but when the shot is zoomed-in to a close-up of an interviewer speaking at the end of the road the microphone needs to be ultra-directional and focused on his lips alone. Such microphones are normally of the 'gun' or 'rifle' type which rely upon the acoustic phase shift along a slotted tube at one end of which is mounted a cardioid microphone capsule (see Fig. 1). Such a microphone is only directional over a limited frequency band becoming almost omni-directional at low-frequencies. In consequence it is usual to apply quite a lot of bass-cut to maximise the directional characteristics and although this is acceptable on voice it can result in an unnatural sound balance on many recordings.

microphone has just the normal response of capsule B. Finally in the omni-directional position 1 the outputs of capsules B and C are summed to produce a back-to-back pair of cardioid responses (which is almost an omni-directional response) whilst the position of VR2 results in the minimum gain setting. The gain does in fact change by some 12dB between the omni and ultra directional positions to simulate the effect of actually moving the microphone physi-

cally closer to the subject.

In the practical microphone the two potentiometers VR1 and VR2 are mechanically linked to the motor driving the zoom-lens and so the change in directional characteristics is quite automatic. Although obviously designed for the video/television world the JVC concept could well herald the possibility of a universal microphone capable of satisfying all the needs of the home recordist.

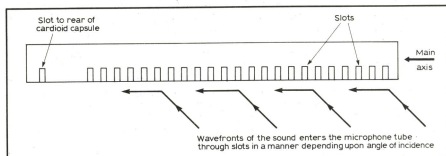


Fig. 1 The 'rifle' ultra-directional microphone

ENCAPSULATED

An alternative form of ultra-directional microphone can be made by using two or more capsules in some sort of phased-array where their directional characteristics can be combined. For example two cardioid response capsules can be positioned closely together on the same axis and their outputs summed out-of-phase. The directional characteristic of the pair will be as shown in Fig. 2. Again this enhanced directional nature will only be true over a restricted frequency band — once the distance separating the capsules starts to approach a wavelength of the signal then the directional characteristic rapidly deteriorates. In consequence the frequency response is somewhat lumpy and needs considerable compensation.

The JVC arrangement does, in fact, use such an array but with three cardioid capsules. Two of these face forwards whilst the other faces backwards and the three are combined in the circuit shown in Fig. 3. The three capsules are of the familiar Japanese electret type but these are selected for a matched sensitivity and frequency response. If we now look at the schematic we will see that the output of capsule A can be added (in a variable proportion) to the output of capsule B or capsule C (the rear facing one). When the potentiometer wiper is in position 3 the outputs of the two forward facing cardioids are summed together after shifting the phase of signal A by 180 degrees at mid and high frequencies. The result (as described earlier) is an extremely directional characteristic. The second part of the ganged potentiometer VR2 is wired in the feedback network of an amplifier and controls the stage gain and the operation of a frequency equalising circuit. Thus in our ultra-directional position 3 the gain is at a maximum and the equalisation gives a mid-range boost. In the cardioid position 2, the output of capsules A and C is shorted out, as in the equalisation network, and the gain is at a middle position. So the

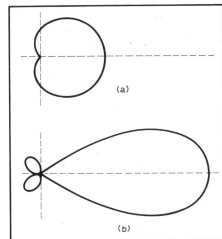


Fig. 2 Achieving an ultra-directional characteristic. a) Single cardioid. b) Phased array of two cardioid capsules

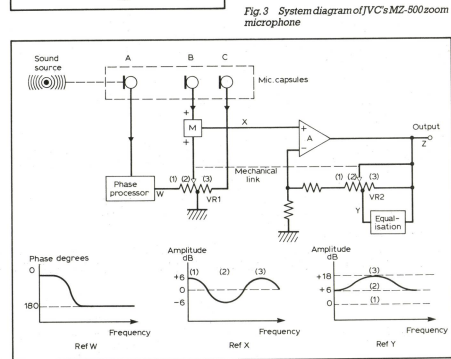


Fig. 3 System diagram of JVC's MZ-500 zoom microphone



BEYOND THE ELECTRONIC BOOKSTALL

CAROLINE BERMAN ON PRESTEL
ASA 'GATEWAY' OF TOMORROW

Prestel, two years after its public launch, has been called anything from an electronic bookstall to a marketing disaster. The advertising had proclaimed a world of information at your fingertips and stressed that, with 180,000 pages on the system, Prestel offered something for everyone. And yet only 13,000 sets have been sold. Tactics are changing and the latest marketing play is to offer the consumer the futuristic prospects of armchair banking, teleshopping and user to user message services.

The price of Prestel has been a major sales obstacle. A Prestel set costs about three times as much as a normal colour TV, although the coming of adapters has, to some extent, solved this problem. The small boxes which attach to ordinary TV sets, converting them into viewdata receivers, are expected to tempt large numbers of people to plug into Prestel. Two manufacturers — ACE and Tandata — both hope to sell 20,000 within the next year. Other manufacturers, such as Zycor, are less optimistic and expect to sell hundreds rather than thousands of their new adapters. British Telecom, renowned for their embarrassingly inaccurate sales forecasts, are also wary and expect the total number of sales to be just 15,000 by the end of the year. But then, British Telecom have other interests at heart — like those of the Prestel terminal manufacturers such as Philips and ITT, who are worried about the effects of the cheap adapters on their sales. But it looks as though adapters will do well for the next few years, or until Prestel becomes an established TV feature.

Some adapter manufacturers are already

getting gimmicky. Granada have recently launched an 'Alphadata' adapter featuring a keyboard with letters arranged alphabetically, for people who can't type. (Keypads usually look like pocket calculators.) The 'Alphadata' is only 9in x 6in and compact enough to carry in a briefcase.

The introduction of the alphanumeric keyboard as a standard feature on the consumer's Prestel set is significant because Prestel is not just an information retrieval system. It is also a message system and the scope for its use is increasing. British Telecom was at first reluctant to allow Prestel users to communicate with each other, possibly fearing adverse reactions from within the Post Office. How many postmen's jobs would be threatened by the new system? But by 1983 users will be able to send any message they like to each other. Until then, from September, they can use a simplified system and send pre-formatted messages.

The 'response' page, which allows the user to order goods, ask for brochures or send comments to the publishers on Prestel, is already widely used. Users with alpha keyboards can even send their jokes to Mac & Tosh, the Prestel jokers, and see their works published in a 'joke bank' on page 48041. Response frames are an important part of Prestel and clearly distinguish it from the BBC's Ceefax and the IBA's Oracle services, which are not interactive.

When the user comes to a response page, his name, address, phone number and the date and time he looked at the page all appear on it. All he has to do is press a button on his keypad to send the page, with the request for information, entry to a competition or whatever, to the Information Provider. To buy goods, the user just keys in his credit card number.

It's all a bit too easy and some people are worried by the prospect of children ordering crates of wine, hi-fi systems or booking plane tickets over Prestel. The good news is that the Office of Fair Trading has set up a working party to look into the effects of Electronic Shopping. The working party aims to clarify at what point a contract is made and will ask whether orders will be confirmed before delivery and what advertising controls should be and are undoubtedly necessary, soon it will be possible for all the shopping to be done without leaving the house. Tesco are already experimenting with Prestel to make shopping in their supermarkets more accessible to those with limited mobility. They have collaborated with Gateshead Borough Council and Newcastle University in a scheme which turns the local community centre, library or an old peoples' home into a 'long distance shop'. Orders are sent by computer and Prestel is used to give details of special offers and information on fresh and seasonal foods. Tesco regards the trial as a proving ground for remote shopping by consumers who spend a lot of time travelling to supermarkets and shopping centres. If this leads to the demise of the weekly shopping expedition, the social implications would provide plenty of work for research students, let alone working parties.

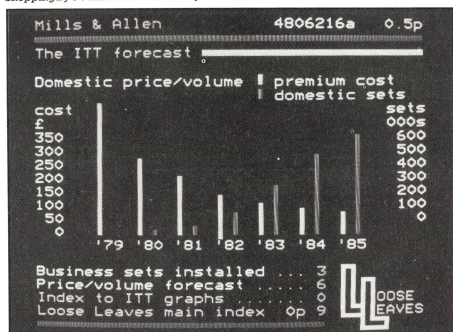
When the 'Gateway' system is introduced by Prestel, in Spring '82, the message system will really come into its own. Gateway is a facility which allows the Prestel user access to information stored in the computers of organisations such as airlines, banks and mail order companies who are linked into the system. Users could call up an airline and book a seat, or call up their bank, look at their statement, stop a cheque or cancel a standing order. This is already possible in Germany, on their version of Prestel — Bildschirmtext — and it's all free. The German user only has to pay the cost of a local phone call. Unfortunately the British Gateway will not be free. At peak phone rates it costs 72p for 12 minutes of Prestel's time. Information providers may also charge a levy on their normal page prices if they are using Prestel as a gateway.

British Telecom seem to believe that Gateway will prove the ultimate panacea for all their present problems. But so far they have not solved some of the basic technical problems of running a Prestel message system. While BT own all the computers and co-ordinate all the information through an indexing system on the screen, the publishers of information (the Information Providers), about 500 different organisations, actually feed all the information into the system and collect all the messages sent to them by the user. Until recently, the message collector had to phone each of the 20 Prestel computers at least once a day to collect the messages. Now British Telecom are to rationalise the network and reduce the number of computers to six, based in London and Birmingham. This will, hopefully, increase the reliability of the service and bring forward the nationwide switch to the futuristic Gateway and user to user message services.

Prestel is already more than an electronic bookstall. In its present state it has its limitations but the future possibilities are endless.



Shopping by TV has reached Germany. Bildschirmtext is their version of Prestel.



ITT's forecast of set costs are far off, but sales were optimistic.



Bildschirmtext even allows access to bank computers — dialled up here from the UK.

Super Video



The JVC guide to everything you want in a Video.

Nobody knows more about video than JVC. They invented VHS, the world's most popular home video system. The HR 7700 is the very latest in video. Wherever you look you won't find a better video recorder. Just read what it can do and you'll know why we call it super video!

Check the features

The HR 7700 has motorised front loading. The picture search shuttles back and forth at 10 times normal speed to find the spot you're looking for on a tape.

Naturally the HR 7700 has variable speed playback. You can watch at double speed, in slow motion, frame by frame or freeze the picture completely.

The programmable tuner is so sophisticated you can record up to 8 programmes on different channels in a 14 day period. You need never miss a favourite show.

For armchair ease the HR 7700 has a full function infra-red remote control. And to keep the sound easy on your ear Dolby® noise reduction is built-in.

There has to be a Number 1 in video recorders... and the HR 7700 is it.

See super video for yourself at your local JVC dealer or send a large stamped and addressed envelope for further details to JVC (UK) Ltd., Eldonwall Trading Estate, Staples Corner, 6-8 Priestley Way, London NW2 7AF.



your guide to the best in video.

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WATCH WORDS

A critical look at the latest pre-recorded videocassettes, with particular emphasis on original video material. This month's reviewers: David Aldridge, Brian Oliver, Sue Pearce and Anthony Burgess

THE CAT AND THE CANARY

Video Unlimited, VHS/Beta, 100 mins, £39.95

Based on the classic play by John Willard, this British-made 1977 film is a well-produced thriller which stars top British character actors and actresses like Honor Blackman, Michael Callan, Wilfred Hyde White and Edward Fox. Because of the strength of its tense, who-dun-it plot, this film scores better than most of the recent Agatha Christie movies which have perhaps relied too much on simply stringing together a cast of famous faces. The film is set in 1934. The family of eccentric millionaire Cyrus West (played amusingly by Wilfred Hyde-White) is summoned to the reading of his will at eerie Glenciff Manor... 20 years after his death. The plot contains some clever twists, such as old Cyrus appearing on film to read the will himself. He sets the tone of the film, and sums up his squabbling family with the greeting: "Good evening leeches... you're all a load of greedy bastards". Although lacking much of the glamour of the big-budget Agatha Christie movies, *The Cat and the Canary* has all the ingredients for a good, old-fashioned thriller: an eerie old mansion in which Cyrus West's distasteful heirs have to spend at least one night; a weird house-keeper who keeps muttering "the end is night" (or words to that effect); a savage storm outside which lasts all night; a lunatic on the run from a nearby asylum who is believed to be inside the old house; secret panels and passage-ways which appear, while people begin to disappear. And

bodies even fall out of cupboard doors. But once you know 'who-dun-it', would you want to watch it again? A good video to rent though. **BWO**

CROSS OF IRON

Thorn EMI, VHS/Beta, 128 mins, £44.50

One of the better war films available, *Cross of Iron* is a very realistic film telling the story of a Prussian Officer set on being awarded the Iron Cross and the closely-knit combat group he joins. The leader of this group is generally regarded as a hero and his personality strongly clashes with that of the Prussian Officer. Half of the group is wiped out during an attack by the Russians. The officer is not present, but claims to have led the daring counter-attack. In order to remove those who stand in the way of his Iron Cross, he instructs what remains of the group to act as rear guard while everyone else retreats. The second half of the film shows their attempts to get back and finishes in a way that leaves the ending open to your imagination. **SP**

THE MAN WHO FELL TO EARTH

EMI Videogram, VHS/Beta, 134mins, £44.50

A welcome chance to reappraise a film that I feel was harshly treated by the critics the first time around. David Bowie takes the title role as an odd alien who's shipwrecked on earth and becomes a business whizz via his superior intelligence in a desperate bid to raise funds to build a spaceship and



get back home. It's a complex, tangled web of a film, brilliantly woven by director Nicolas Roeg and spider-at-the-centre Bowie who may have little to do but act his own unnatural-looking self but still succeeds in doing it remarkably well. Occasionally things get a mite too tangled and I feel that even Roeg had lost track of what should have been going on. But by and large it's a thought-provoking study of isolation and alienation (in the literal sense) that's well worth slightly more than two hours of your viewing time. **DA**

THE POSTMAN ALWAYS RINGS TWICE

Guild Home Video, VHS/Beta, 122 mins, £39.95

This, of course, is the big 'did they or didn't they?' film — the moot point being whether stars Jack Nicholson and Jessica Lange simulated their torrid sex scenes or went at it for real. Personally, I don't care whether they used stand-ins or did it all by mirrors — the scenes in question are merely strands in the web of passion which ensnares the two lovers and compels them to clumsily attempt to murder Lange's husband. Nicholson over-acts like there's no tomorrow; Lange looks lovely and more than matches Nicholson in their smouldering scenes together, and John Colicos is as brilliant as ever as Lange's husband (how good to see him getting a decent part to play after that appalling *Battlestar Galactica* TV series in which he played traitor Baltar with about as much relish as a condemned man facing his final meal). **DA**

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TAPE REVIEWS



CONVOY

Thorn EMI, VHS/Beta, 106mins, £44.50

BREAKER BREAKER

Vipco, VHS/Beta, 86mins, £39.95

SMOKEY & THE HOTWIRE GANG

Mountain Video, VHS/Beta, 81mins, £39.95

The next time a breaker (that's a CB user) cuts across your TV giving you a 10-1 (broken up) Coronation Street, just reflect on breaker Rubber Duck bowling his big Mack down the Arizona flat top, squashing police cars and giving citizens band radio a bad name. **Convoy** is the definitive CB movie, an action packed western with trucks instead of horses, truck-stop girls, bad sheriffs and Kris Kristofferson as a rebel-without-a-cause trucker who's charisma attracts women (Ali MacGraw) and semi-trucks with equal effect. The film's based on C.W. McCall's hit single of a few years back, celebrating the loose comradeship of these latter day wagon trainers as they truck together under an ill-defined banner of freedom. It's difficult to believe that law enforcement officers can be as bad as Dirty Sheriff Lyle, enthusiastically played by Ernest Borgnine, but one does

suppose that they're all rednecks down there. A brush with Lyle's vindictive radar sparks a latent frustration in the CB trucking community and, before the authorities know what's happening, they've got a convoy on their hands. Considering the mayhem that follows and director Sam Peckinpah's previous bloody epics, it's remarkable that there is no apparent serious injury to those in demolished houses, flattened gauls and ruined police cars. Rubber Duck inevitably becomes a focal point for the media which attempts to make him into an instant folk hero, but he throws away fame and fortune in a characteristically decent gesture, busting a fellow trucker out of gaul and making a dash for the Mexican border. The impressive final demise of Rubber Duck's semi is executed in best Peckinpah slow motion action, and the Duck's funeral is bound to bring a tear to the eye of the tender hearted. There is, however, a twist to the plot in the closing scenes. As an all action adventure movie **Convoy** is great entertainment value and if you're thinking of getting into CB, get a copy on it (that's not CB for boot-leg either). If nothing else, **Convoy** puts forward a convincing argument for banning juggernauts. **Breaker Breaker** isn't a pure CB movie in the mood of **Convoy**. Certainly there are trucks, fights and some use of Citizens Band but more obviously it's a vehicle for Chuck Norris, a world champion karate exponent whose hands and feet have the same punch as the 18 wheeler that he drives. See this movie as Bruce Lee meets the Dukes of Hazzard and you've got the picture. Chuck plays J.D. Dawes, a man with a reputation just returned from some 'hard graft' in Alaska. He delegates his younger brother to take out the family rig (CB radio) on a routine delivery, his first outing, and the

youngest is consequently diverted by crooked cops on a detour to notorious Texas City, the truckers graveyard. Gore lovers will appreciate the more violent aspects of the interpretation as Chuck, single-handed, takes on a crooked town to spring his wretched brother. The truckers camaraderie is still there in the finale, — you'll be amazed what damage a few antics can do to a town. Probably the best aspect of the film is the excellent country music soundtrack by director/musician Don Hulette which holds together a package that's a bit short on both time and plot. With tape rental down to a quid a night you really can afford to take liberties with your viewing. **Smokey and the Hotwire Gang** is a CB movie that gives the impression that it's been constructed from about three separate movies and edited with a hammer and chisel. At the same time it's a glimpse into specialist US programming that will never make it to UK broadcast. The film is often so dire it's hilarious, full of not-so-fast driving, passive shells angels and limp prostitutes. The shakedown in CB vs organised crime, and for CB'ers it's worth a watch for the handles (names of CB'ers) alone, Texas Ledy, the kosher cowboy springs to mind, as do Hotwire the flacid femme fatale gang leader and Sexy Sadie, a rye piece of hot pastami hooker. As the plot eventually fizzles out you're left with the impression that it never really started. Perhaps someone forgot to put the pedal to the metal. American CB, its language and attitudes have been imported into the UK largely intact and, love it or hate it, FM27 is the legal decision. It does go very nicely with the fluffy dice but is perhaps of questionable value in a country that would fit comfortably into Arizona and where it's easier to wind down the window and shout to other breakers!

AB

GREAT STORIES

Global Video Supplies, VHS/Beta/V2000, £29.95

There are 12 cassettes in this series — *Great Stories 1-12*. The time hasn't been included above as it varies between cassettes. Each contains about six stories lasting anything between six and ten minutes. The stories are a mixture of cartoons and animations from Bulgaria, Hungary, France, W. Germany, Sweden and Denmark. Don't worry, they're not a combination of weird and wonderful languages, not a word is spoken on any of them. The stories are accompanied by catchy tunes related to the nationality. They are the right length for children, but are so amusing that many adults will enjoy watching them too. One of the best in the series is *Great Stories 9*, called *The Three Fools*. It comprises six stories satirising the stupidity of the human race. *Great Stories 6* seems almost moralistic. All the characters come to a nasty end because they are big-headed, overuse of themselves or lack responsibility. The cassettes can be bought as a set, but at £359.40 a saving of only 60p is offered.

SP

TOM & JERRY

MGM/CBS Home Video, VHS/Beta, 56mins, £34.50

The most-famous double act in cartoon

history have been fighting and delighting for more than 40 years now. And I see no reason on earth why they shouldn't still be playing their cat-and-mouse games — and delighting kids and adults alike in the process — in another 40 years' time. After all, despite tremendous technical advances in animation techniques since the last war, nothing has yet surpassed the skill, style and humour of a top-notch Tom & Jerry, whether it's the stunning animation, the persistently funny, slightly-surreal humour or even Scott Bradley's utterly apt musical accompaniments you zero in on for assessment. This supremely-entertaining compilation strings together eight classic Tom & Jerry's from the twosome's heyday of the late 40s and early 50s. It culminates in the utterly wonderful *Cat Concerto* masterpiece which quite deservedly won masterminds Hanna and Barbera an Academy Award, but equally magic moments are legion throughout this tape. In fact, I defy you to find a better hour's entertainment anywhere. Like Jerry himself, this one will run and run.

DA

WORLD FAMOUS FAIRY TALES

TALES OF MAGIC

Both Derann, VHS/Beta, 55mins, £29.95

These two tapes have obviously been taken from the same US television series. The presentation is identical. The overall

quality is that of a children's TV cartoon 'filler' and the animation itself is good but fairly basic. Parents might think twice about buying either tape because they are certainly not in the Walt Disney class. But youngsters will probably love them nevertheless because they contain some of the best children's stories ever written. *World Famous Fairy Tales* is the better tape because it contains five of the most appealing and best-loved tales: Robin Hood, Jack and the Beanstalk, Aladdin's Lamp, Al Baba and the 40 Thieves and 'Gifts of the North Wind'. They contain plenty of colour and the Ogre in Jack and the Beanstalk is sufficiently 'scary' to get the tots running for cover. The only problem is the dialogue. It is too American. For example, Al Baba doesn't just say 'Open sesame'. He yells (in a near-Brooklyn accent), 'Oh, c'mon door. Open up, won't yah. How's about it, huh?'. The title of the other tape, *Tales of Magic*, is slightly misleading because only two of its five stories are 'magical'. The other are mainly tales with a 'message' for youngsters, such as the Aesop's Fable *The Ant and the Grasshopper*. Each title features some cute characters which children will love, as well as some they'll love to hate. There are also tear-jerking moments for the tots... as well as lots of funny scenes. Both titles are fairly simple in presentation and are obviously aimed at fairly young children.

BWO

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TAPE REVIEWS

HARRY CARPENTER'S "VIDEOBOOK OF SPORT"

BBC Video, VHS/Beta, 110mins, £37.95

Although the rather broad title of this tape is somewhat misleading (only three sports are featured), it is a thoroughly enjoyable collection of memorable events which most keen sports fans will recall. It claims to show the best of rugby union, cricket and football—and it does. In fact, it could easily have been titled: "Greatest moments in British sport". When the BBC launched its video catalogue last September, it announced that it firmly believed in the concept of videobooks — publications aimed at a new type of viewer who can stop and start a programme, go back to the beginning or repeat a particular sequence as often as he wishes. It certainly works in this case because of the quality and appeal of the contents. This tape follows the same sort of formula as those children's Christmas annuals which tell the story of historic sporting events. The difference is that video is able to show each event "as it really happened" — in this case with carefully-edited highlights based on old BBC TV footage. It will also appeal to all ages. The videobook only features six sporting events, but each is a classic in its own field. It kicks off (literally) with the rugby match which fans are still talking about eight years later: the All Blacks versus the Barbarians (1973), which featured (according to match commentator Cliff Morgan) "the greatest rugby players of the decade — indeed of all time". It was one of the fastest-paced rugby matches ever played in Britain and that great Welsh full-back of the inter-war years, Vivian Jenkins, wrote the next day in the Sunday Times: "Magic, sheer unbelievable, undiluted magic". That just about sums it up. Rugby fans also have another treat on this tape. It shows England winning the Grand Slam for the first time for 23 years in March, 1980. After that, the action becomes even more dramatic. It moves on to the highlights of the memorable semi-final of the Gillette Cup in 1971, between Lancashire and Gloucestershire, which has the distinction of being the longest game of cricket ever played in one in Britain. It started at 11 am and finished just before 9 pm (in almost total darkness), with Lancashire's batsmen just about able to see the ball as they fought on to win by one run! Lancashire's subsequent

victory in the final in September, 1971 is also shown. Another treat for cricket fans is the first Prudential World Cup Cricket Final between Australia and the West Indies in 1975. After 9½ hours of sparkling cricket, the West Indies took the trophy, thanks largely to a "Boys' Own" century by Clive Lloyd. This tape ends with the event which, more than any other, restored pride to British sport — England's World Cup victory over West Germany in July, 1966. Although the pictures are in black and white, they (and "the voice of football", commentator Kenneth Wolstenholme) somehow help to recapture the magic of that emotional day for soccer fans. A generous helping of 25 minutes worth of the Final's highlights are featured — almost a Match of the Day report in itself. Although the presentation of the tape is handled pretty much in the Harry Carpenter TV style, the historical appeal of the well-selected contents is likely to make it a collectors' item for sports fans. **BWO**

MYSTERIES FROM BEYOND EARTH UFO JOURNALS

Both VCL, VHS/Beta, 90mins

Both are also very disappointing. Disbelievers in such phenomena as UFOs will remain unconvinced and believers will possibly become disbelievers. We are told that the Earth is a hollow shell which is inhabited by the owners of flying saucers. Mammoths live down there too. The frozen mammoths that have been found are not from the distant past, but are unfortunate creatures who wandered out into the outside world and froze. It may cheer you up to know that "death is a disease but not incurable." (The secret is to put the body into ice and replace the blood with anti-freeze.) The Bible is referred to as the best flying saucer book written, in fact Jesus came to Earth in a flying saucer. One of the funniest bits in these 'serious' documentaries is when a man goes into a trance and an 'alien' talks through him. This confirms the belief that all aliens talk like Daleks. Apparently we are headed for the final countdown! so it's lucky that an American woman has bought several acres of land for our space brothers to land on. Seriously though, these cassettes are pretty appalling. They are badly put together and both use the same photos of

your 'genuine flying saucers'. Just for the record I'm not necessarily of the opinion that flying saucers and other such phenomena don't exist, but these two cassettes did nothing to sway me. **SP**

THIS YEAR 1980

VCL, VHS/Beta, 120 min

Or Last Year 1980, to be more accurate. Pedantry aside, this is an excellently compiled audio-visual almanac, put together by The Sunday Times and culled from TV coverage including the archives of ITN. The tape covers a lot of historical ground during its two-hour span. All last year's important political, social, natural and sporting events are featured — from the seizing of the US hostages in Iran to the Moscow Olympics and the death of John Lennon. In addition, there are potted interviews with in-the-news personalities as diverse as Margaret Thatcher and cricket commentator John Arlott. All in all, a snap if you've the remotest interest in world affairs. **DA**

BOTANIC MAN VOL. 1

Thames Video, VHS/Beta, 104mins, £39.50

I've no particular interest in plants but this compilation tape of the first four programmes in David Bellamy's Thames Television series hooked me well and truly. Not because of the wonderful photography — though wonderful it is. Nor because of the fascinating facts that, if it weren't for plants, we'd have nothing to breathe, eat or use as fuel — though fascinating such facts undoubtedly are. No, the principal attraction of Botanic Man is Bellamy himself — a TV and video natural belonging to the same exclusive clique that includes Barbara Woodhouse, Patrick Moore, gardener Geoffrey Smith and, to a lesser extent, Magnus Pyke, James Burke and David Attenborough. Bellamy basically is a treat to watch as, gangling limbs lolling all over the place, he ends up knee-deep in muck to enthuse over some obscure moss. Anyway, entertainingly explored here are the roles that plants play in the complex cycle of nature, how plants evolved as the first life-forms, water-living plants, and plants as important sources of fuel (coal, peat etc). And it's all educational to boot. Incidentally, if you get hooked as I was by Volume 1, you'll no doubt be pleased to know that Thames also market Volumes 2 and 3 of Botanic Man. **DA**

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FERGUSON	3V24	£550	VHS	•				•		•	•	•					•
FERGUSON	3V25	£200	TUNER			9	1										
FERGUSON	3V28	£230	TUNER			14	8										
FERGUSON	3V26	£60	ADAPTER														
HITACHI	VT6500E	£665	VHS	•				•				•					•
HITACHI	VT-TU65E		TUNER			21	8										
JVC	HR-2200		VHS	•				•		•	•	•					•
JVC	tuner/timer	£768				10	1										
JVC	AC adapter	£642															
NORDMENDE	V350	POA	VHS	•				•	•	•	•						•
NORDMENDE	F350	POA	TUNER			10	1										
PANASONIC	NV-3000B	£580	VHS			14	8	•		•	•	•					•
PANASONIC	NV-300B	£215	TUNER			14	8										
SHARP	VC2300H	£610	VHS			1	1		•			•					
SONY	SL3000UB	£579	BETA			7	5						•		•		

VIDEO CAMERAS

BRAND	MODEL	PRICE inc. VAT	LENS						VIEWFINDER			
			VIDEO	MONO- CHROME	AUTO IRIS	ZOOM RATIO	MOTOR ZOOM	MACRO	OPTICAL	THRU- THE-LENS	ELEC- TRONIC	WEIGHT (KG)
AKAI	VC-90E/S	£500	•		•	6:1	•				•	1.98
AKAI	VC-60E/S	£500	•		•	6:1		•		•		1.5
AKAI	VC-30E/S	£399	•		•	3:1			•			1.4
FERGUSON	3V20	£500	•		•	3:1					•	2
FERGUSON	3V17	£399	•		•	6:1			•			1.4
GRUNDIG	FAC1900	£720	•			6:3	•				•	2.9
HITACHI	VK-C800E	POA	•		•	6:1	•	•			•	
HITACHI	VK-C600E	POA	•		•	6:1					•	1.9
HITACHI	VK-C750E	POA	•						•			
JVC	S100	£1000	•			10:1	•				•	4.74
JVC	GX-33	£360	•		•	3:1		•		•		1.4
JVC	G71P	£740	•		•	6:1					•	3.6
JVC	GX-88E	£540	•			6:1	•				•	1.95
PANASONIC	WV3000	£490	•			3:1					•	1.5
PANASONIC	WV-3200E	£625	•		•	6:1	•				•	3
PHILIPS	V100/15	£175	•	•		4:1					•	1.5
PHILIPS	V200	£650	•			8:1		•			•	3
PYE	V200	£675	•		•	8:1		•			•	3
SANYO	VCP545P	£650	•			6:1					•	2
SHARP	XC-30H	£360	•		•	2:1			•	•		1.4
SHARP	XC-33H	£510	•			6:1				•		1.5
SONY	HVC3000P	£649	•		•	6:1	•				•	2.7
SONY	HVC2000P	£559	•		•	6:1	•				•	2.7
SONY	HVM100CE	£169	•	•	•	2:1	•				•	1.3

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JVC HR7700	PDA	Sony Z2
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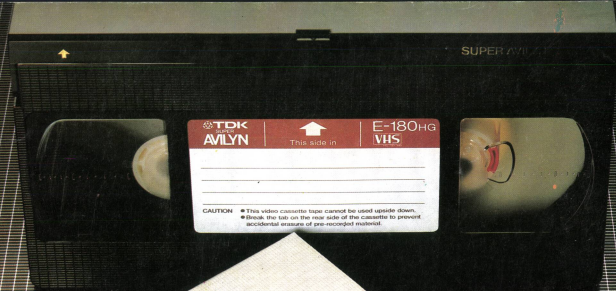
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